

The American Journal of
**CLINICAL
MEDICINE**

Dependable Therapeutic Fact for Daily Use

M A Y

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THERE are so many good things in this number of CLINICAL MEDICINE that it is hard to pick out any one or any ten articles which you should read first. All I can do is to make a selection at random. For instance—

Read Doctor Lawrence's paper on "The Elimination Treatment of Typhoid Fever," Doctor Beates's paper on "The Untrustworthy Galenicals," the instalment of Doctor Gray's fascinating "Old Doctor's Life Story," Doctor Robinson's "Treatment of Gonorrheal Arthritis," Doctor Moss's thrilling adventures under "Leprosy in the Philippines," Doctor Murphey's "Nonsurgical Treatment of Cancer," and Doctor Perry's study of "Dental Malocclusion." Also, do not overlook Doctor Nourse's "Current Comment of a Country Doctor," Doctor Whetsell's story, "Another Side—Think It Over," Doctor Clark's "Emetine Experiences," and Eytinge's "Capital Punishment."

I have "just touched the high spots." Once started, you will read every article in this number—and renew your subscription for another year, "with a vote of thanks."

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MAY, 1915

Si Jeunesse Savait!

TWO French proverbs carry with them the wisdom of the ages:

"Si jeunesse savait!"

"Si vieillesse pouvait!"

If youth but knew! If age but could!

Older and more inscrutable than the riddle of the sphinx is the problem of combining the knowledge gathered during one's life, the wisdom evolved by thought based on experience, with the push, the fire, the incentive, the activity, the strength of youth. Has not every father sought to pass to his boy the lessons gathered during his own career? Has he not noticed, with a disheartening sense of failure, how his words go into one ear and out of the other, how the boy pursues his own way, pulling to pieces the painfully reared creations of his fathers to furnish materials for his own structures? Sooner or later we conclude that every man is going to try for himself; is going to stick his finger on the paint, to see whether it is really fresh; to stub his toes against that same old April First hat full of bricks.

But the boy grows into manhood, too, and, as he gets his own experience, he comes nearer to us—for, law rules, and two and two make four. So it is that the world teaches each new generation the lessons it forced upon

the one preceding. While the youth disdains his father's wisdom—looks upon the old man as a mossback, a back number, an old foggy, a drag upon progress, a brake upon the wheel, youth grown up, begins to recognize that there is, after all, some truth in the oldster's warnings, and when matured realizes this the more, until he and his generation get to wonder how the fathers ever could have learned so much.

It is the law of nature: nature which rules the gods themselves and all things sublunary as well as celestial. It is kismet; the wheel that revolves; fate; the planets whirling in their orbits; the seasons succeeding each other in due turn. Youth is enterprising, and must learn. Age is conservative, has learned its lesson, and seeks to secure its winnings, the while youth seeks to grasp its share.

Every generation of doctors buries an inestimable treasure of gems and gold in its sarcophagus. Each successive new breed, or brood, trades, mines, robs, gathering a new hoard for itself, now and then digging up from the tumuli of the anteceding generations some of the buried treasures. The old gems receive new settings, and the old gold is reminted, with the bust of the reigning monarch

replacing the grim old conqueror of the past. Still, we make progress.

Progress is peculiar. Mainly we add to our collection of facts. We get ahold of new remedies, and forget the old ones. We devise new methods, and neglect the former. We widen our scope, and the channel loses depth. Everywhere there enters that dreadful law of compensation, to subtract from our expectations. We institute vaccination, and save innumerable multitudes from a loathsome death from smallpox, and then many of those thus protected die of scarlet-fever. We improve domestic, personal, and municipal hygiene, thereby prolonging the lives of many who otherwise would have died in childhood—and they survive, only to propagate a race of weaklings, who possess less resistance than that vigorous race that ere this had survived in the former fierce struggle for existence. Our improved methods and remedies work just well enough to give us, dealing with the deteriorated race, as good results as our fathers obtained with their cruder weapons but more vigorous subjects.

I am requested to write a paper urging young doctors to be conservative. I shall not do so. I do not believe in it. I do not wish to see young men conservative, any more than I want to see boys with the graces and accomplishments of girls. It is not natural. A young man must be radical, energetic, rough, initiative, enterprising, quick to take up the new, disdainful of what has already been done and won. He should take any and every novel suggestion and push it to the utmost possibility. He should not be satisfied to let well enough alone or to do as well as his ancestors. He should not be contented or easy to get along with, but, full of discontent, ceaselessly striving to push out and compel neighbors to give him more room. He should insist that he is to be reckoned with and placated, or he will stir up trouble. He should be a very uncomfortable and troublesome neighbor.

When Harvey, Jenner, Waterhouse, Lister, Tait, Morton, McDowell are sat down upon ponderously by the very big men of the profession, they are not to consider themselves absquatulated or mashed flat, but to keep rising in rebellion and be sticking pins into the superincumbent weight, until the seat becomes too uncomfortable; and in due time the positions will be reversed, and the sittee becomes the sitter. When the powers and principalities, the disciplined armies and the 42-centimeter howitzers, the zeppelins and the submarines, the mines and the torpedoes,

the great guns and the quick-firers, all are trained upon the twilight-sleep advocates, it is up to them to keep a-fighting, taking as their war-cry the immortal words of Paul Jones, "I have not begun to fight yet."

Every great truth wins in time. When you have met all the opposition ranked against Christianity, you may begin to be discouraged, but not sooner.

There is a better thought than that of advising young doctors to be conservative—let them join forces with the older men and make a team of it. Pair off thus, and you have a far greater power than could be exercised by two of either. Let the wisdom of age be made active by the energy of youth. Let the force of youth be directed and kept from falls by the experience of age. Waste of misguided effort is avoided, waste of inertia is prevented. The wooden shaft receives a lance head of steel. Enticing by-paths that lead nowhere are avoided, the straight road is followed, and we get there. The brake on the wagon is useful, but it does not pull a pound. The team is powerful, but the vehicle runs off the road into the jungle, unless restrained.

There is much more that could be said—but I know every last one of you is dying to say it himself, so—finis!

Mr. Wells is writing in the strain of the prophet about the coming alterations in the map of Europe. They are of little importance compared with the fact that all the economic energies, the intellectual powers and aspirations which made for civilization, suppressed in Europe, will have made their home in the new world. The sun of humanity is going to rise brilliantly in the west, and Europe is at the close of its long day, its royal domination over the fortunes of the world.—George W. Russell.

ARE YOU KEEPING THE RECORDS

We fear that many physicians are not keeping the records required by the Federal Narcotic Law. As we have already stated, it is of the utmost importance that every practitioner should follow to the letter the rules laid down by the Commissioner of Internal Revenue. Those who neglect to do so will get into trouble.

There is no doubt that the law will be enforced. Already physicians in different parts of the country are being visited by Federal inspectors. While the Government is undoubtedly inclined to be lenient at the present time, since the law is not fully understood as yet, and trade conditions are still somewhat chaotic, it is to be expected that there will soon be a general tightening-up all along the line.

Again we must urge readers of this journal to make their inventories of narcotic drugs on hand on March 1 (if they have not already done so), secure record books, and preserve therein records of all drugs dispensed or administered, with the single exception of those personally administered to a patient when away from the office.

In case of doubt as to whether a record should be made or not, *make the record*. Take no chances whatever. Also, in treating those suspected of being narcotic addicts, great caution should be observed that none of these people take advantage of your generosity or ignorance of the legal requirements.

For the convenience of our readers, we offer a Narcotic Record Book for the use of physicians, dentists and veterinarians. In addition to the blank space required to fulfil legal requirements, this book contains a careful digest of the requirements of the law as it affects physicians, dentists, veterinarians and pharmacists; also, blank space for inventory, affidavit form, and so on. It is handsomely and substantially bound in cloth, printed on fine paper, ruled in red, provides space for 1500 records, and is of pocket size (same as your visiting-list), so that it can be carried wherever you go. The price is only 25 cents. The same book, beautifully bound in seal grain flexible leather, for 75 cents.

I am a true laborer: I earn that I eat, get that I wear; owe no man hate, envy no man's happiness; glad of other men's good, content with my harm; and the greatest of my pride is, to see my ewes graze and my lambs suck.—"As You Like It."

LEGISLATIVE QUACKERY

During the winter just passed the United States Congress and the legislatures of some forty states have been in session. The number of bills introduced in these aggregate bodies have been greater than the number of statutory enactments of the English parliament from the time of the Conqueror until the present time. These bills have attempted to regulate almost everything that is in the heavens above, and in the earth beneath, and in the waters under the earth. There is no business or profession that has not been attacked; no political, social or economic evil for which some legislative remedy has not been prescribed. They have sought to reach into all the affairs of public and private life.

Among the large number of subjects which have engaged the attention of these legislative tinkerers, the practice of medicine, and

matters of health and sanitation generally have had a conspicuous place. Some of the laws enacted upon these subjects are excellent, were greatly needed measures, and will redound to the benefit of humanity. But it must also be confessed that the great majority of them represent merely the restless and hysterical craze for legislative activity which has taken possession of the medical profession in common with the rest of the American public.

How is it that the medical profession, which, of all bodies of men, is the greatest stickler for conservatism and stands in the greatest abhorrence of everything that savors of quackery, lends itself so readily, nay eagerly, to that most brazen of all quack remedies for social and economic ills, the nostrum of the law? What would be thought of, or done to, the physician who should keep a big bottle of guaranteed pain killer, or "sure cure" specific on his shelf, and to every patient who came to his office should dole out a good stiff dose of this cure-all, with positive assurances to the sufferer and his anxious friends that it would not only relieve his present troubles, but effectually protect him from all recurrences of a similar nature? Yet that is practically what the profession is doing in respect to all conditions of the body social with which it feels called upon to deal.

If it were not so serious a matter it would be ridiculous. Such forced legislation is not only never effective, but it always defeats the very purposes it is intended to carry out, and delays the development of public sentiment in right directions. Legislation ought always to represent the crystallization of already prevailing public sentiment, not an artificial attempt to precipitate it, which will invariably result in cloudy confusion. Only the most settled and established truths and principles of action are fit and proper subjects for legislation; and everybody knows that in medical science these are exceedingly few and far between.

The most serious aspect of all this legislative craze is that it ties the hands of the independent, individual medical practitioner, and sets up a hindrance in the way of scientific progress. It tends to cripple and restrict the *clinical* side of medicine. If medicine had always waited for authoritative certification and regulation of her materials and methods, there would never have been a science of medicine; and if she is now to be compelled to adopt this attitude all along the line, there will be a dead halt to her advance. Nor will it avail to say that medical practice must keep

behind the advance of authoritative and legalized medicine; for every man with a grain of sense knows that clinical medicine, on the contrary, is, and always must be, in advance of every other phase of medicine, as a ground-breaker; that it furnishes the stimulus and inspiration to all the others; and without its forward influence all other branches of medicine would lose their motive and their *raison d'être*, and fall into desuetude.

For all these reasons, the multiplication of medical laws and official "regulations" restricting and interfering unnecessarily with the conduct of the physician and with his materials, is both silly and vicious, and it is high time that a halt was called upon it. It does not have its rise in any real public demand, nor does it represent any natural crystallization of well-matured public sentiment, which are the only genuine bases for all kinds of legislative enactment.

When you come to think about it on this old terrestrial ball,

Rimmed with roses in the springtime, heaped with fruitage in the fall;

Though we all were born a-growin'—though we're axle-deep in doubt,

There is really very little for the world to growl about.

CANCER—A SUGGESTION

Here is a suggestion which may be absolutely valueless. On the other hand, it may prove of the utmost importance. Only a clinical try-out will tell whether it deserves extended consideration on your part.

Someone should try emetine hydrochloride in the treatment of cancer. This alkaloid seems to exert the most powerfully destructive action upon low forms of life of any remedy thus far introduced. You know what it will do in tropical dysentery. Many of you are already familiar with its action in amebic pyorrhea. Read the report of Doctor Frazier's experience with the drug in treating typhoid fever, as reported in *The Medical Record*, and printed in abstract elsewhere in this number. Read also the letter from Doctor Burrow, of Bolivia, South America, who shows that it is curative in another disease heretofore thought incurable—*la espundia*, or "tropical sore."

Cancer has long been thought by many to be caused by protozoa. While its etiology remains unknown and uncertain, there is at least the possibility that the preceding hypothesis is the correct one. If it is, then emetine may prove the remedy sought for all these years. We admit that the probability is a small one, but is it not at least worthy of consideration?

We put the question to our readers with the hope that some of them will take the next step. Who will do this?

IMMIGRANTS AND DISCIPLINE

We may bewail as much as we like the passing of "the good old days," when every man looked out for himself and suffered if he were not smart enough. True, the system developed self-reliance and keenness and the grand old pioneer qualities generally. It was a system for strong men, not for weaklings that required parental supervision. But it has gone, and the other system has come in. We are to be very much more governed; told what we may and what we may not do; held in restraint; and the Allemannic watchword *Verboten* replaces the *E Pluribus Unum*.

Well, what of it? What is there to do but make the best of it and try to twist this fagot of crooked sticks around our kettle until it boils better than ever? If we are to have discipline and organization, let us, as physicians, come into the game.

Why should Ivanoff and Sciancaferro and Orlaczsky and Pietriwicz and Oleson and Silberstein and Kohacz and Ali Khan and Papanopoulos and Mustapha and Gschwandner and Jonikaitis be permitted to employ any doctor they happen on, when they don't know enough to tell a real one from an 'ist? Why should they be allowed to eat poison and drink helfire and raise hell at their own sweet will, while we wait until they get awake and partly civilized, or until their kiddies grow into real Americans? Just divide them up into centuries and assign each group to a municipal doctor, to keep them well.

The Germanic ideal of discipline and organization is crude and primitive. It may be improved upon in every direction. We have about one doctor here to each 600 people. Organize these into groups, put a doctor in charge, and let him instruct them in the science of sanitation, which is the very brightest star of modern civilization, the growing-point of modern progress. Let each individual be taxed accordingly, from a dime to a dollar a month, and pay the doctor a salary that will enable him to do his full duty, keep up with the progress of the profession, and illustrate his teachings properly.

Liberty, as we understand the term, is a very different thing from what these undeveloped immigrants know as such. They come from lands where the ancient feudal restrictions and the modes of thought based

thereon have as yet been but partly thrown off. They are accustomed to being ordered about, thought for, directed; they touch their hats to Authority, even to Uniform. Their ambition still is limited, as in English books, where an aspiring youth is assured that if he keeps on in the good way he may win the approbation of the squire and even get in time to be coachman!

Why confer on these people all the privileges we enjoy, without due preparation? By doing this, we arouse in them a belief that liberty is freedom and has no limits. They have to try it out and see how far they can go. The labor-agitator finds willing minds and ready hands among them; the distinction between real liberty with respect for the rights of others, and license with no limits has to be learned by them. Dull, insensate, brute impulse has to be met with the strong arm of the law before the lesson is learned. The primitive impulse to take by force, to live off of others without work has to be weighed down by the acquisition of family, home and personally owned property before the civic development occurs.

No violation of sentiment, no disappointment, no revulsion should occur, if these people, on their arrival here, were assigned to the supervision of government officers, health-directors, who should assign homes to the immigrants, and also occupations where they would be most likely to make good. The cotton-growing Armenian should go the waiting fields of the South, instead of to the northern factories. The knowledge and skill of the farmer, the vintner, the raiser of fruit, truck, rice, silkworms, poultry, cattle are a large part of the capital brought to our shores by these men; and every bit of this should be utilized here, simply giving the owner the benefit of the larger field, the freer chances for development, afforded by our own country. The man who made his living in Serbia raising pigs or by raising truffles in Perigord should make a fortune here in the same pursuits.

What we give these men is, first, opportunity, second, development. For the latter object, there would be a vast improvement were each to be placed, as suggested, under a government health-officer, who should oversee the dwelling, the food, the domestic and municipal sanitation. The Slavonian peasant need not and should not be allowed to live here like a pig. From the day of his landing, he should understand that, if he is to become an American citizen, with all the rights and privileges appertaining, he must live like an American.

It is little wonder that he fails to comprehend our system at once and that he mistakes our liberty for license. Let the years that our laws place between his landing and full citizenship be spent in a tutelage that really develops him into capacity for what he gets, instead of the meaningless requirements of "knowing the Constitution" by reading it, and what not.

This is the more necessary now that we are expecting a huge addition to our population, following the ending of the European war. We should prepare for the organization and assimilation of the crowds soon to be on the way. What better way than this of organizing a corps of sanitarians to take charge of the hordes?

The ideal doctor is a judicial observer. He is cool, quick of decision, with plenty of initiative. He will help people, whether they can recompense him or not. He is an idealist consumed with desire for the actual, visible accomplishment of something for the direct benefit of the race.—R. H. Schaffler.

THE PASSING OF ALCOHOL

A few good things have already come out of the European war, terrible as it is. Russia, by a stroke of the imperial pen, has abolished the sale of vodka; and Great Britain bids fair, by an equally drastic legislative enactment, to end the reign of alcohol among her people; two sweeping and far-reaching denouements which could hardly have achieved such a rapid development under any other conditions, and of which the immediate and ultimate effects can scarcely fail to be of immense advantage to the nations concerned.

At first blush it might seem that here are two glaring examples of the very type of premature, forced legislation which we have just taken occasion to criticize and discredit. Looking a little more closely, however, they will be found to furnish, on the other hand, conspicuous instances of precisely the opposite—of legislation which really represents the crystallization of a slowly matured public sentiment. The feeling against alcohol, among thoughtful and decent people, at least of the Anglo-Saxon nations, is no sudden, hysterical affair. It has been growing for many years. It was bound to crystallize, sooner or later, into concerted action in the shape of prohibitive legislation.

In England, the process of crystallization has been hastened by the pressure of military exigencies, as high pressure will always hasten a crystallizing process; but, except for this, there is really nothing abnormal about the

situation. To change the figure rather abruptly, Great Britain was "ready for the question." Under other circumstances, to be sure, it might have been tabled for a few years longer; the war has forced the vote a little, but that is all. And the alacrity with which the country has received and supported the motion is sufficient evidence that it found a response in public sentiment.

The same denouement is inevitably and irresistibly on the way in the United States. No one who has watched the development of popular feeling on the subject for the past ten years can doubt it for a moment. We have no pressure conditions here which are likely to force crystallization in any sudden or precipitate fashion; the process will take its normal, gradual course. But it is none the less inevitable. Nor will it, we think, be long delayed. Easily within the reasonable lifetime of those of us who are even on the shady side of middle life, this country will enjoy universal prohibition.

We say "enjoy" deliberately and advisedly. Twenty years ago we might not have said so. If it *had* been forced upon us as the result of hysterical, fanatical propaganda, we should doubt both its desirability and its effectiveness. But because it comes to us as the natural outgrowth of experience and public sentiment, it cannot be other than beneficial.

Of course, our temperance friends will take to themselves a great deal of credit for the change in the situation; and it would, in fact, be strange if the persistent efforts of these earnest propagandists had not made some impress upon the status of alcohol. But the real factor in its decline has been the growth of a calm, unprejudiced public opinion. One by one, the fallacies which bolstered its use have, under the light of modern knowledge, been disproven and discredited by the application of reason and the showing of fact. Far from being an expression of fanaticism, the situation represents the exercise of sound common sense.

It will, of course, involve a little sacrifice by those among whom alcohol has never been an abuse. But a sacrifice of what? An indulgence, only; a luxury, and a questionable one at that. There is none of us that will be any the worse for the abstinence. Nay, let us be honest. There is not a single man Jack of us but will be the better for it. Not by the furthest stretch of imagination can drink be regarded as one of the necessary elements in the right to life, health and the pursuit of happiness which is guaranteed us by the constitution, and for which we are properly

jealous. And the causes of crime and wretchedness and poverty and unhappiness which its abolishment will at one fell swoop remove make every other consideration look picayune in comparison.

We repeat, this is the kind of legislation that is at once benign and effective—the legislation that represents the crystallization of public sentiment, spontaneous and unprejudiced, which has slowly gathered strength in every class of people, irrespective of politics or religion or personal interest, until its enactment into law is merely the formal expression of what has already become a virtual law. This is the old way of making laws. It still prevails, to a large extent, in England. Would to heaven it would come into fashion again in this country! There would be fewer laws on the statute books, to be sure; but such as were there would be sane, rational laws, enforceable and enforced, instead of the farcical freaks of premature legislation which now encumber our all-too-plethoric tomes.

He drew a circle that shut me out—
Heretic, rebel, a thing to flout.
But Love and I had the wit to win:
We drew a circle that took him in!

—Edwin Markham.

TELL US ABOUT THE SUMMER DISEASES

In our next few issues we should discuss the problems of the summer months. Among topics of timely interest worthy of your special attention are such subjects as

Infantile Diarrheas.

Diarrheas of Adults.

Intestinal Antiseptics—How to Use Them.

Dysentery, North and South.

Experience with Laxatives.

Food Poisoning, and How to Treat It.

Biliousness and Other Forms of Intestinal Indigestion.

Typhoid Fever: Suggestions as to Its Prevention and Cure.

How I Stopped the Hemorrhage.

Bulgarian Bacilli in Summer Diarrheas.

Experiences with Copper Arsenite.

How to Purify the Water.

Infantile Convulsions, and How to Handle Them.

Teething Troubles, and How They Should Be Treated.

Pyorrhea.

Many other topics will doubtless occur to every reader. Please pick out the one which suits you best and write us about it. We shall be especially appreciative of short articles, from 300 to 500 words in length,

regarding actual clinical experience with the summer diseases. Articles on diarrheal diseases will be particularly welcome. We wish we might get a hundred such articles in time for use in our next issue. We could not print them all, but we could and would use many, providing they were short, snappy and practical.

Give us not too much theory, but all the helpfulness that you possibly can. That is what our readers want, and that is what you want, too, or I miss my guess.

We want therapeutic and diagnostic help, and records of clinical experience.

How many will send in articles? Why put it off—why not let us have a short one today? You do not need to fix it up; just make it a "letter to the editor," and he will do the "fixing up" for you.

Don't forget to tell us what you are doing with emetine.

He was ready to sacrifice everything to his principles—which was right; but he sometimes mistook his prejudices for his principles.—Ellen T. Fowler.

DOGWOOD—DO YOU KNOW IT?

Whenever there is a scarcity of the drugs ordinarily employed and American physicians cast about among the native plants for resources therapeutic, one of the first to be utilized is the dogwood, *cornus florida*. During the Civil War, the bark of dogwood was found quite effective in combating malarial fevers. However, when the conflict ceased, the crude preparations in vogue were unable to hold their own against quinine and soon ceased to be employed. Possibly if cornin, the crystalline active principle of dogwood, had been extracted and supplied relatively as cheaply, the verdict might have been different.

According to Lloyd, cornus is tonic, astringent, and slightly stimulant. The specific indications named for the administration of cornus are: tonic antiperiodic in intermittent and miasmatic fevers; pyrosis, quinine-headache, general exhaustion, feeble, relaxed tissues, feeble pulse and subnormal temperature; quininism.

Ellingwood also employs cornus for atony of the gastrointestinal glands, finding that the drug increases the appetite, improves digestion, and relieves the drowsiness and dulness attending imperfect digestion. Intestinal digestion also is enhanced by it.

This writer for many years has employed cornus florida as a tonic for the erectile

tissues. It is a true tonic, somewhat slow in action, but enduring in effect. The extract should be given in doses of 4 grains before each meal, best dissolved in water to secure the tonic action upon the stomach also. It should be continued for, say, a month.

The results of its use have been so decided and so satisfactory that it is evident that we have in cornus a remedy of value, too great to warrant its present neglect. Nor is it to be confounded with other bitters as simply one more tonic; it has distinct and peculiar properties of its own.

The difficulty lies in the want of a modern preparation. We have become so accustomed to the conveniences of quinine that even our elixirs and other preparations of "cinchona" now almost universally are prepared from the cinchona alkaloids. We scarcely can ask our patients to take the crude and nauseating fluid extracts, after their having been educated to pleasant and, yet, effective small-dose medicines.

Will not some wise and enterprising manufacturer start the ball rolling and put in our hands a pure alkaloid cornine? It is the psychologic moment for a new and rational native-American movement in the drug-world.

A FEW REMARKS ABOUT GOUT

A Kansas City man, T. W. Schaefer, declares that we must drop our old ideas about gout and adopt something more in accordance with present-day knowledge. The absurdity of attributing this malady to uric acid is evident on considering that a Gram (15 1-2 grains), of this acid requires 7680 Cc. (or 256 ounces) of water to dissolve it.

Alkalis and diluents are aimed at the symptoms and not at the disease. The exclusion of proteids from the diet is a questionable expedient. The use of lithia and alkaline mineral waters is of undoubted great benefit to the purveyors.

Schaefer attributes the malady to a disturbance of the nutritional balance, owing to a slow, long-continued intoxication, really caused by chemical irritants, in the form of ptomaines or toxalbumins, absorbed from the digestive canal and thus giving rise to the toxicogenic symptoms characterizing gout.

"There is constipation, the tongue is coated, and fermentative changes occur in the intestinal tract, giving rise to constitutional absorption of the products of decomposition. These products are not uric acid."

Gout is associated with obesity, and this with sterility. Some uteroovarian complaints seem to exert a strong etiologic influence in creating the symptom-complex of the disease. Uric acid is a derivative of purin and xanthin; to this group belong uric acid, guanine, adenin, hypoxanthin, heteroxanthin, paraxanthin, caffeine, theobromine, etc. Of these, some exist in plants: peas, beans, asparagus, oatmeal, and onions contain much; some are products of animal metabolism; and some may be produced synthetically. Meat-bases are closely related to the caffeine, being purins. The evidence against them is not enough to convict them of inducing gout. Uric acid is nontoxic when taken internally.

The affections grouped under the gouty diathesis are all from faulty metabolism. The relation is intimate between the gastrointestinal toxic products and serious disturbances of general health. Many nervous and mental diseases are now attributed to intestinal putrefaction. Neuralgia at present is treated by giving cathartics. Fecal toxemia deprives the red blood-corpuscles of their resisting power.

Intestinal diseases kill our domestic animals; dogs, cats, horses, cows, and we ourselves are slowly poisoned by food. Advancing years display slighter resistance, the tissues are weakened because of feeble and tardy elimination; the fecal toxemia opens the door to the microbic invaders that occasion infection and decay.

Colonic diseases increase the tendency to stasis; the large intestine "is a veritable sewer of filth or cloaca of the body." Paroxysmal febrile attacks brought on by fecal toxemia may mimic malaria and deceive the physician. Others resemble typhoid fever, hepatic abscess, and other obscure, complaints.

On the other hand, witness the juvenility, the alertness, the activity, mental and physical, of the aging man who takes care to keep his sewers clear, his bowels free. People stop and look after him in surprise; they ask how he manages to keep from growing old; why he walks with the quick, springy step of youth?

Don't waste time convincing the grouch—give him a pill.

Don't bother to sympathize with the melancholy; try podophyllotoxin.

Don't pull out your check-book to help the unfortunate whose business is going to the dogs; take him around to the pharmacy and treat him to a dose of some effective saline aperient.

Colchicum—which being translated into 29th century prose means colchicine—is useful for gout? Surely it is; but turn back several centuries and read how our wise old observant ancestors said: "Give the meadow-saffron until it acts freely upon the bowels."

Oh, if I were King of France, or, better still, Pope of Rome,

I'd have no fighting men abroad, no weeping maids at home;

All the world should be at peace, and if kings would show their might,

I'd have them that make the quarrels be the only ones to fight.

WHAT IS THE MEDICAL IDEAL OF MANHOOD?

The wide exploitation that nowadays is being given to the subject of eugenics very naturally suggests the question as to what combination of qualities really does constitute the ideal of manhood from the medical point of view; a rather important question, it must be admitted, in view of the avowed crusade which modern medicine and its allies have undertaken to bring it to pass.

Such an ideal can not, certainly, be the production of a race of perfect animals; for, that would place medical science in the anomalous and hopeless position of antagonizing the march of evolution and of attempting to annul the animal kingdom. And, besides, the reduction of the race to a dead level of physical perfection, even if that could be accomplished, would not be a net gain to humanity. The fact is, the bulk of what are called entirely healthy people add nothing to the sum of human achievement, and a reduction of all types to one solid uniformity of what is called health would have the effect of depriving humanity of precisely those individuals who have added most to the beauty and variety of human existence.

Nevertheless, the function of modern hygienic medicine is concerned with the physical side of life, all latter-day fads and theories to the contrary notwithstanding; and with its other phases—the economic, sociologic, psychic, and other aspects—only as they bear upon the physical.

As a matter of fact, the medical ideal is the production of a race of men and women who shall be best fitted to endure, for the longest period and with the least physical reaction, the stresses and exactions of modern life. Longevity is an element in the ideal; so is working-efficiency; so is sanity and poise; and so are a dozen other conditions; all of

which will, in individual cases, vary their proportional values, but will give a net resultant of *mens sana in corpore sano*. The medical standard, in short, is nothing more nor less than normality.

Whether this ideal admits of anything like standardization is very questionable. It would seem as though the growing complexity of civilization and its demands rendered such a standard increasingly impracticable. Whether any general formula can be handed down for its attainment is equally doubtful. It is more reasonable to believe that the efforts which are directed toward its realization must, like those which are directed toward the cure of disease, be more or less "symptomatic," that is, governed by the conditions surrounding each individual case, or at least each group of cases. What may be health for the miner may be quite other for the bank-clerk; and similarly for other planes of life.

And, finally, medicine should not lose sight of the fact that its own ideals of health, after all, do not play any great part, if any, in the real progress of mankind. The medical man, so to speak, walks in the rear of the procession, picking up and caring for those who fall by the way, and shouting frantic admonitions to the impetuous ones at the head of the march—admonitions that scarcely are heeded, and which, indeed, for the ultimate good of the race, it is well shall not be too seriously heeded.

No physical ideal, no health-crusade that interferes with the higher ideals and crusades of humanity ever will impress themselves upon the world at large. Yet must medicine forever persist in promulgating the doctrine of physical fitness and be content to play the part of trainer in the camp and of second in the ring.

WHAT ADVANCE IN ANESTHESIA?

The subject of anesthesia *seems* to remain, from year to year, *in statu quo*. In spite of the wonderful improvements made in the last ten years in the preparation and methods of spinal anesthetics, it does not seem as if the spinal method had gained much favor or received very wide adoption; and the inhalation of ether and chloroform, in some combination or other, varied here and there by nitrous oxide, still appears to hold its place as practically the universal anesthetic.

Nevertheless, the tide really is turning, however imperceptibly, against general inha-

lation anesthesia; and there have occurred, in the past few years, several significant modifications in the surgeon's attitude toward chloroform and ether. We are beginning to understand that there is more in the matter than the mere technic of administration, or even than the considerations of cardiac and respiratory dangers during such administration. We are realizing that the introduction of these vapors into the blood has a chemical-physiological action which carries its own peculiar menace, and we are becoming more and more cautious in our employment of them.

Nowhere is this modification more apparent than in our position on the question of chloroform in obstetrics. This subject has passed through two distinct stages and has now well entered the third. At its first suggestion, the great majority, even among the profession, stood aghast, and offered all sorts of grave objections, physical and moral, to its adoption.

Gradually, however, the thought won its way, and then sentiment swung to the other extreme. Why should the parturient woman be denied so simple and obvious a means of robbing childbirth of its terrors? Harmless and effective, it was a boon to which every woman was entitled, and the physician was cruel to withhold it. And, so, for a long period, the chloroform-bottle and mask formed a routine part of the obstetrician's outfit, and the welcome anesthetic was administered with a light and airy insouciance.

Today the situation again is noticeably changed. From every experienced and authoritative quarter we hear warnings against the use of chloroform in the lying-in room; not because of any rediscovered dangers in the process of administration, but because of our recently acquired knowledge of the hemolytic action of the drug. It is the same specter which, lurking in our minds, impels us to the search for other means of surgical anesthesia. For this more sensible view of the matter, we are largely indebted to the comparatively recent science of hematology.

The purely spinal modes of anesthesia thus far offered, despite the enthusiastic claims made for them from time to time, have not justified themselves, and are, properly, regarded as impracticable and now all eyes are turned toward the so-called psychic anesthetics—the "twilight sleep." Wide popular interest has recently been aroused in the subject by the exploitations of the lay press, and the whole country is expectantly watching the tryout of the "daem-

merschlafl" in certain hospitals in New York and elsewhere in the conduct of labor.

We flatter ourselves that with our readers this mode of anesthesia has long since passed the tryout stage; they have been successfully using it, in an unostentatious way, for several years. We, therefore, speak of the matter here not, indeed, for the purpose of bringing hyoscine and morphine anesthesia to the attention of our readers—that would be carrying coals to Newcastle—but to point out that slow-moving public opinion is at last definitely turned in the way that we and our friends have been pioneering for years. The tide now evidently has set in this direction, and we cherish the hope that the present year will see a marked advance along this road.

A child's kiss

Set on thy sighing lips shall make thee glad;
A poor man served by thee shall make thee rich;
A sick man helped by thee shall make thee strong;
Thou shalt be served thyself by every sense
Of service which thou renderest.

E. B. Browning.

THE WAITE BILL

Woman has at last revolted against her femininity. She has examined the system of nature, and pronounced it wrong. She considers the social contract, and declares it unjust. For all these centuries, she has met man, had her brief riot of delight, strolled with him for a season in the garden of love, and then the beloved man has gayly bidden him off to fresh scenes, to the chase, to warlike emprise, to other gardens with other girls, perhaps, while leaving her to bear the consequences of dalliance, the shame, maybe, the suffering of parenthood, and too often the burden of support for the fruit of their joys. Now she demands a more equitable arrangement, and Dr. Lucy Waite, of Chicago, has camped on the trail of our Illinois legislature, with the avowed intent of remaining there until her bill is enacted into state law.

In brief, this bill provides that the birth of a child shall automatically wed the parents, provided neither is already married. Further, the putative father must, within three months of the child's birth, file an affidavit as to his fatherhood, under penalties for neglect; and the mother or nearest friend may bring his dereliction to the notice of the state's attorney. If the jury decides that the accused man is the father, he is mulcted with a fine, and pronounced legally wedded to the accusing mother.

It is asserted, in connection with this effort, that from 3000 to 6000 illegitimate children are born in Illinois every year.

Nothing is easier than to see faults in things as they are. To youth, glorious, capable, energetic youth, it pertains to see the wrong, and furiously to assail it, until ancient abuses are done away with, old wrongs are righted, and the bad old world betakes itself to soap and water, and shows up with face shining and clean—for the time. But the passage of years brings about the same old experiences, and one has to ask whether in the end any real benefit has been attained. For, we learn in time that there exist deeply buried reasons for the things that are, and that any disturbance occasions rapidly widening circles of agitation extending very far beyond aught that might have been anticipated.

One of the best examples of this was furnished many years ago, when Russia attempted to deal ideally with the problem of the illegitimate child. Russia opened a home for foundlings so well arranged that the mothers could leave their infants there, with no possible exposure. The child was taken in and a wet-nurse provided; and that the nurse should be relieved of all need of work or worry, her pay was so large that she was lifted out of poverty, was well supplied with nourishing food, had plenty of rest, and could devote herself exclusively to the care of the child. In fact, her position was made so desirable that the maidens of the vicinity devoted themselves assiduously to the business of becoming mothers; then they left their infants at the institution, came the next day and applied for positions as wet-nurses, received their own children, and were supported in luxury and idleness thereafter, until the children were old enough to be taken off their hands and replaced by new ones. The result to the morality of the district may be imagined.

Take this proposed law as represented by Doctor Waite: With the fundamental idea that the father should take his full share of the obloquy and stand his full share of the expense incident to child production, we are all agreed, of course. But, how is this to be accomplished? How is his paternity to be proved? Is it safe to accept the mother's word in every instance? Does the woman always know? It is said that a Frenchman once, when selected as the putative father of a child, remarked that "when one sat down on a basket of thorns it was perhaps difficult to decide which thorn wounded the sitter." Does not this aspect open a vista of unlimited deception and blackmail?

When the Titanic disaster made young Astor the greatest financial catch in America, he received hundreds of letters from women proposing marriage. Put the Waite proposition in the statute-book, and any of these women who could secure or pretend motherhood by the young man, would be married to him and enjoy his millions. What a race there would be, to see which could "beat the others to it." Suppose two, or a dozen, got in line; what a trial of methods to induce premature delivery of yet viable infants, as the first child born won the prize!

No bachelor would be safe; and the more eligible or desirable, the more certain he would be to fall before the wiles of the adventuress.

Any normal, healthy, young woman wants to be a wife. What about legally empowering every woman to get a husband by the easy method of becoming impregnated and bearing a child? The door to immorality opened by the Russian founding asylum would be narrow, indeed, beside the portals thrown wide by the Waite law proposed.

These remarks are not based upon a reading of Doctor Waite's proposition, but upon the account of it given in the press. It may be that the proposed act contains provisions to obviate the objections cited, but we fear this is not possible, and that the inevitable consequences of any such law would be such as to render it impracticable. Nevertheless, the evil it seeks to reach is so great that there should be some way of coping with it; and the discussion of Doctor Waite's proposition may bring to light a feasible plan.

Sympathy with pain is not the highest form of sympathy. Anyone can sympathize with the sufferings of a friend, but it requires a very fine nature to sympathize with a friend's success. Sympathy with joy intensifies the sum of joy in the world. Sympathy with pain does not really diminish the amount of pain.—Oscar Wilde.

XANTHOXYLUM—PRICKLY-ASH

The war has interfered seriously with our supply of many drugs, and especially those most largely employed in practice. This has had the effect of diverting attention to the drug-plants of America. The Department of Agriculture has, for years, been attempting to direct interest toward the cultivation of the more valuable of these, and with some success. It is to be hoped that the present conditions may favor this very desirable object.

It does seem unwise for us to pay a war-tax of 200 percent advance on dandelion root, when every lawn is infested with it. It

has always seemed absurd to pay 40 cents a pound for the quarter-ton of burdock-root we import annually from Germany, when it is to be gotten from every farm and roadside in the country.

The main reason why we do not use native plants is, that we—some of us—know very little about them. Yet, whenever any of these has been introduced, it has made friends. Among those that have won the commendation of quite a number of American clinicians is xanthoxylum. One of my colleagues values the bark of the prickly-ash so highly that it enters into the composition of nearly every prescription he devises.

Xanthoxylum is a shrubby tree found all over the United States, although in the South the official xanthoxylum americanum is largely replaced by an allied species, xanthoxylum carolinanum. Only one of the group of alkaloids of this genus has been separated, and this has been identified with berberine. There are qualities in xanthoxylum, however, that can not be explained by anything that has ever been found to attach to berberine.

Lloyd attributes to prickly-ash the powers of a stimulant of the nervous and circulatory systems and of the secretions. It is a powerful sialagog, increasing gastric and intestinal secretion, as well as the bile, pancreatic secretions, urine, perspiration, and mucus from all the mucous membranes. It also hastens the pulse slightly. It is emmenagog and carminative, and the berries are antiseptic, according to the same authority.

Its field has been the so-called rheumatic affections of the muscles, that is, myalgias, lumbago, torticollis, pleurodynia, and so on; as a nondebilitating eliminant for debilitated subjects, as in syphilis and scrofula; as a gastrointestinal tonic in atonic dyspepsias, catarrhs, costiveness, flatulance, catarrhal and malarial jaundice, spasms of the bowels, colics, and the choleras; in the declining stages and convalescence from dysenteries. King used the berries in Asiatic cholera; the bark in atonic diarrheas, typhoid conditions, and the tympanites of choleras. It has been employed in association with diuretics and tonics for dropsies, malaria, and functional dysmenorrhœas.

As a stimulant of the nerves, xanthoxylum has been given in nervous prostrations, hemiplegias, locomotor ataxia, and all varieties of vital depression. It is said to relieve pain along the front of the thigh, after-pains accompanied by dorsal or sacral suffering, and the neuralgic pains of anemic and deli-

cate persons. By overcoming capillary stasis, it sends to the surface the rashes of the eruptive fevers, especially if retrocedent.

This bark is credited with an interesting local action. When there is present the dull pain of peridentitis and toothache, chewing the bark gives relief, as it does also in glottic paralysis, facial neuralgias, and paretic conditions of the larynx and pharynx.

The specific indications, according to Lloyd, are: Small doses for hypersecretion from debility and mucous relaxation; large doses for nerve atony, the capillary engorgement of the exanthemata, sluggish circulation, tympanites, gastrointestinal torpor with scanty secretion, dryness of the mouth and fauces with glazed, glossy surfaces, flatulent colic, true cholera, uterine cramps, and neuralgia. For painful bowel affections, the berries are said to be preferable.

The bark is considered stimulant, tonic, alterative, and sialagog, the berries, stimulant, carminative, and antispasmodic, acting especially upon mucous tissues. The difference probably is ascribable to the presence of a volatile oil in the berries. Whatever specific virtues xanthoxylum possesses it owes to a principle contained both in bark and berries.

In studying this drug ten years ago, the writer said: "An agent that will stimulate the mucous secretions throughout the body, without nauseating or depressing, is of considerable interest and should receive numerous applications. Since that time it has received some attention, as being one of the ingredients of the Towne-Lambert remedy for morphinism. Here, this very property comes directly into play, to counteract the influence of opium in checking secretion and in eliminating from the body its stored toxins.

Xanthoxylum is a remedy for chronic states, as it is slow in getting to work, and the tonic effect it exerts upon the mucous membranes is slowly developed. Hence, it is best given in moderate doses, at long intervals, and to be continued for at least a month before one decides what its effects may have been.

Despite the latter-day tendency toward mergers and combinations, this writer is a believer in individualism. There is room for any man, doctor or druggist, who has leisure, to take a single plant, the one that flourishes best in his immediate neighborhood, and make of it his own specialty. Cultivate it; ascertain the best varieties and treatment to develop its powers; the best preparation that may be made; and market it, and it

alone, as your own personal work, your contribution to the profession and to humanity. This has been done in several instances, and thus, veratrum, passiflora, viburnum, helonias, aconite are associated with the names of men who at least have made these plants familiar to us by their advertising. Whether they have been equally solicitous in the scientific part of their work, we leave to them and to those who utilize their products.

ÆSCULIN—HOW USE IT?

The recent announcement that there is reason for the belief that the veins possess a set of vasoregulatory nerves of their own, distinct from those governing the arteries, brings into prominence the question of remedies influencing the caliber and tension of the former vessels. Judging solely by clinical observations, many practitioners have claimed for certain remedies the power of acting upon the veins; and when many concur as to the powers exerted by a drug it is at least worth our while to give the suggestion a trial—especially when we have nothing else upon which to rely in that condition.

Many a man has carried a horse-chestnut in his pocket as a remedy for hemorrhoids, without analyzing the possibility of its efficacy. The bark of this beautiful native tree yields about 2-12 percent of æsculin, a bitter glucoside. In the galenic preparations, it is associated with other principles—example, saponin—by which it is masked and its effects so modified as to render them too uncertain for practical application. The glucoside itself is now to be had commercially and it has been studied quite carefully.

Æsculin is credited with the virtues of a bitter tonic, especially relieving chronic capillary relaxation. The evidence points to a tonic action on the veins, rather than on the arterioles. It has proved useful in abdominal plethora, visceral neuralgias, general vascular fulness, soreness and throbbing with malaise, uneasiness, fulness and aching in liver, rectal irritation, and hemorrhoids of the large, purple form without bleeding, sphincter spasm, and itching, heat, pain or uneasiness in the rectum. Rectal reflexes also are relieved by it.

Being a remedy for chronic conditions, æsculin should be administered in small doses and continued for long periods. A grain a day, in divided doses, usually gives satisfactory results. If this proves ineffective, a grain daily may be added each week until the effect is manifest.

Leading Articles

The Treatment of Typhoid Fever

With Special Reference to Elimination

By V. E. LAWRENCE, M. D., Ottawa, Kansas

EDITORIAL NOTE.—Every reader of this journal who had the privilege of going through Doctor Lawrence's fine article on "The Treatment of Croup," in our December, 1914, number will read the following article with equal eagerness. The Doctor has original ideas that are helpful to every physician.

PRIOR to 1798, when Dr. Edward Jenner announced his discovery, or, rather, invention of vaccination, the index of diseases contained the names of many maladies that proclaimed themselves invincible, and before which the medical profession bowed in humble acknowledgment of its inability to retard their onward progress. Shakespeare's statement that "death hath ten thousand various doors for men to take their exit" was lamentably true.

Jenner was the first champion to block one of these doors, and other notables have followed, until now the exit by way of hospital-gangrene, septic infection, yellow-fever, hydrophobia, tetanus, diphtheria, and membranous croup are so effectively blockaded that the enemies approach their professional opponents with more than an even chance of defeat.

From time immemorial, King Typhoid has held, almost unchallenged, his declaration that *he* is the *really* invincible one. His citadels have been attacked in all ages and by all methods, but he holds the record, until of recent years, of unbroken conquests. It has been his proud distinction to have had for his conquered subjects the brightest lights of the medical profession. For all these years, the best medical authorities have unqualifiedly declared that not only is he invincible, but that his progress cannot even be successfully retarded; that it is folly to advance against his forces and that all that can be done is, to fortify the organs of the body against his attacks and to hold the fort as best we can, until the victim becomes his prey or he withdraws from sheer exhaustion. Yearly, in the United States alone, between 45,000 and 50,000 persons in the prime of

life, and many of them in the vigor of youth, become his prey. He is almost the champion enemy of human life and outside of tuberculosis is the champion victor.

It is now some months since the managing editor of this journal requested me to contribute an article upon the treatment of this disease. My views (and my experience) on its treatment have been so radically different from those generally accepted by nearly all the leading text books, and by a preponderating majority of physicians, that I have hesitated to present them, because of a natural diffidence in differing with men of eminence and reputation in our profession; but, believing that it may be useful, and hoping to remove from the minds of at least some practitioners and their patients the dread with which they attempt a defense against this disease, I have concluded to respond to the editor's request.

How the Idea Was Evolved

My twenty-five years' experience in writing upon the differential diagnosis of diphtheria and membranous croup, and on the curative properties of the dark iodide of lime in the latter, have taught me that a narrative of the steps by which conclusions are arrived at is the most decisive means of convincing others of the accuracy of such conclusions.

For this reason, I will recite the steps which gradually led me away from the belief that typhoid fever is an invincible disease and thence to the conclusion that among the diseases attacking mankind it, in reality, is one which most surely responds to proper treatment, and, moreover, is the least dangerous among all the dangerous diseases. And, furthermore, that there should follow from an

attack of typhoid fever very few, if any, pathological conditions; by which I mean that there should be almost an absence of the dangerous anatomical conditions and the septic infection which make the disease so fatal to human life.

It is now twenty years since I located and began to practice in this little city. In the fall of the same year, I had under treatment my first case of this disease after locating there. The patient was a young man living in the country. The weather was hot and the roads were dusty. The attack was an active one and the patient soon manifested most of the dangerous and alarming symptoms so often seen when the disease is allowed to follow its own course. He received the best treatment recommended by the best authors. Every effort was made to conserve and improve his strength. Every means of which I was cognizant, calculated to enable every organ to perform its functions and resist the attack, was employed. Still, the patient went down into the valley of delirium and emaciation, and exhibited all the other familiar symptoms except alvine hemorrhage.

Five weeks of this found my man a shadow of his former self. Then the high fever, culminating in crisis, left him in a shattered and exhausted condition, although with the usual chances of a more or less dangerous convalescence. I discontinued my visits after giving the usual directions and admonitions.

Two days after that, I was summoned 150 miles distant, to see a patient at my former home. Upon returning, thirty-six hours later, I was informed that a fatal hemorrhage had carried my patient away during the previous night.

While previous failures to save other patients had been a source of disappointment, this one produced in me the first sensation of absolute defeat and discouragement. The disheartening acknowledgment on the part of the medical profession of its inability to modify the course of typhoid fever, dating back to the earliest history of the malady, together with the high mortality and the altogether uncertain results of even the best-known treatment, brought me nearly to the determination no longer to accept typhoid-fever patients.

About this time, the typhoid bacillus had been discovered and a few doctors began to believe that something might be done to retard the progress of the disease and ameliorate the dangerous conditions resulting from its unopposed march.

I spent the following year in gathering together what little was said by the two or three men who wrote upon the subject.

With this information to guide me, I arrived at the conclusion that, since without exception the intestines were the primary seat of the enemy, *active elimination* (purging) and intestinal antiseptics ought to prevent invasion. Accordingly, I marked out a line of treatment, with these conditions in view.

At that time knowledge regarding intestinal antiseptics was very meager, indeed. I believe nothing had been written about the sulphocarbonate of zinc, and at first I knew nothing of this salt, but used the arsenite of copper and one or two other antiseptics—now known to be less efficient than the zinc salt. Further, so far as I am aware, no one had written upon or put emphasis upon alvine elimination. However, thought upon the matter convinced me that intestinal antiseptics without simultaneous active elimination could but partly succeed. Also, that the contents of the bowels, together with the typhoid germs, must be flushed out—and actively and completely flushed out—and that this flushing must be continued *throughout* the disease. It grew upon me that, with the bowels more or less filled with infected feces, the disinfectants had but a poor chance to perform a gigantic task, while by *thorough* elimination their task would be greatly diminished and their opportunity to reach all parts of the alimentary canal much increased. It became clear to me that intestinal antiseptics was but one step in the right direction, and that not alone was elimination an important, but a much more essential one, and that the two measures combined ought to comprise an enemy which this heretofore invincible disorder would be unable to resist. Under such treatment absorption should be materially diminished and ulceration prevented.

The textbooks have always warned against the use of even mild laxatives, assuring the physician that the patient soon would be jeopardized by an active diarrhea, and that, to ward against this, astringents and opiates must be prescribed.

I can call to mind no more fatal error on the part of the profession than its failure to realize that this diarrhea actually is caused by the presence of the infected contents of the bowels and that this flux is nature's effort to rid herself of the cause of intestinal ulceration and the destruction of Peyer's glands; that nature was crying aloud for an early and efficient cathartic. It is nature's index which

for a thousand years the doctors have failed to read and interpret.

Successful Test of the Theory

It was not until a year after my first case that a second typhoid patient fell into my hands. A young man of twenty-four had gone west to assist his brother in the harvesting. Unluckily, an epidemic of typhoid fever was prevailing, and the physician of the village lost 17 patients. This young man also fell victim, and as soon as the attack was diagnosed he returned home and became my patient. A friend, his fellow workman, remained there and died of the disease.

I had seldom seen a case more fully developed at the first visit. All the symptoms were prominent; the evening temperature was 105° F. Forgetting—ignoring—everything I had learned as to the manner of treatment, I furnished the family with a pint of saturated solution of magnesium sulphate, and ordered a series of doses (stirred into a glass of hot lemonade—which almost entirely disguises the disagreeable taste), to be given every three hours, until not less than six active movements of the bowels were obtained during the next twenty-four hours. Through a misunderstanding the man's sister had doubled the dose, and reported, to my surprise, that the patient had had not less than a dozen passages during this time. I felt slightly uneasy about this. Still, upon examination of the last stool voided and noticing its foul odor, I concluded that such offending stuff could not be gotten rid of any too soon.

No doubt this statement will be startling to those who have avoided cathartics and feared the least evidence of activity of the bowels. To understand why this patient was not hastened to the grave by such bold violation of established precedent, it must be realized that all hemorrhage comes from ulceration of the intestines and Peyer's glands; that this ulceration is caused by the septic contents of the bowels; and that hemorrhage is not possible if the putrid, infected contents are removed before having had time to produce ulcers. Of course, all but the mildest laxatives are to be avoided should the patient fall into the hands of the physician after sufficient time has elapsed to permit of the ulcerative process. However, this is not the case when the doctor is called at the usual time.

To continue my story: Directions were also given that the patient should drink one pint of boiled water hourly. Also, that the intestinal antiseptics must accompany the

water. No attention whatever was given to any of the symptoms, and no effort was made to enable the patient to withstand the oncoming attack of the disease. And this simple treatment was continued unchanged throughout the illness, except that the bowels were caused to move about four to five times daily thereafter.

The patient progressed about as follows: No change occurred for the first three days. Then all the symptoms began to diminish in severity; also, the patient remarked that he felt better and asked for the milk and butter-milk, which before had to be urged upon him. The story can briefly be concluded by saying that from this time on the disease fell completely into the hands of the attending physician—as, indeed, is true for all cases since then. Its retreat was gradual, and its total disappearance occurred on the fourteenth day. There was no sign of delirium or of hemorrhage and the patient developed no symptoms at all alarming. His convalescence was so short that he was out of bed almost the first day after the fever left him.

Adoption of the Sulphocarbonate of Zinc

This was twenty years ago. Soon after that I began to use the sulphocarbonate of zinc as an intestinal antiseptic, and I believe it is the best. I prescribe it in 5-grain doses, hourly, together with the water. I am careful to be sure that it is chemically pure—an impure article will annoy the stomach. Usually the patient swallows the tablet whole; some prefer it dissolved. Boiled water will lose its taste of flatness after standing twelve hours. The water should be boiled not less than fifteen minutes.

I insist upon the patient drinking as nearly one pint of water hourly as he can. Some have little trouble in doing so; others cannot drink that much. At first, all complain of a feeling of fulness. This, however, passes away in two or three days, as the kidneys and bowels respond to the demands made upon them by the water. The epsom salts is continued. If either the water or the saline laxative is neglected, improvement of the patient ceases.

Experience soon taught me that my typhoid patients needed no heart or any other tonic and that the organs performed their offices without assistance. Occasionally I have added a 1-4-grain calomel tablet. It will be found that, instead of having diarrhea, increasingly large doses of the saline are required to obtain the desired number of movements.

The zinc sulphocarbolate should be continued for about a week after recovery, as a preventive against a return of the bacteria, but in less frequent doses. [Our experience is that, in the average case, best results are obtained with the combined zinc, sodium, and calcium sulphocarbulates; when decided astringent action is desired, then the zinc salt, alone, is indicated.—Ed.]

As to diet, there is no necessity for the care usually taken. Fresh milk or buttermilk are applicable. The white of eggs may be stirred into lemonade. Beef, finely chopped, may be given raw, and seasoned to suit; or, if the patient prefers, it may be molded into flat cakes and quickly and lightly cooked upon a hot griddle greased just enough to prevent sticking. I am in the habit of recommending lemonade, as desired, instead of plain water; also plenty of orangeade. Feed often, but in small quantities.

As to diagnosis, I will add that during recent years the blood of all patients has been subjected to the Widal test and all gave the

characteristic reaction, except one. The percentage of fatalities under this treatment has been 3-4 of 1 percent. No uncomplicated case has failed to make a good recovery and none developed dangerous symptoms. There has been an almost complete absence of delirium, and only two had hemorrhage, and they only just enough to be detected.

It must be remembered that the treatment of all diseases is a contest for supremacy between the disease and the remedies and that there are times when either may predominate. So in this treatment of typhoid fever. There are times when the fever will assert itself and even may increase. At this juncture, the physician must not lose faith in his remedies, but continue them in even increased dosage. The remedies will, in due time, gain the ascendancy.

These twenty years of experience have convinced me that the general adoption of this plan of treatment would reduce the fifty thousand fatalities to about one-tenth this number.

The Untrustworthy Galenicals*

By HENRY BEATES, JR., Philadelphia, Pennsylvania

UPON the broad principles of the law of cause and effect it may be affirmed that either like causes produce like effects, or that causes are followed by effects which, upon analysis, demonstrate the character or nature of the cause. Other things equal, it may be stated, therefore, that like causes produce like effects.

We have exemplification of this truth in the series of phenomena designated acute croupous or lobar pneumonia. The diplococcus of Friedlander, or pneumococcus, having gained entrance into the human economy, under suitable conditions evolves a toxic principle that causes the well-known phenomena: a severe chill, occurring as a rule during the night, thoracic oppression, dyspnea, rapid temperature rise, intense frontal headache with its accompanying suffusion of face, rapid pulse, short, dry, painful cough, and an expression of distress and anxiety—which indicates the apprehension the victim experiences from the profound systemic toxemia of which the pulmonary symptoms are but a minor feature. We know that this toxic product possesses an especial affinity for the endothelial elements and their basement

membrane, which compose the air vesicle, and that the effect of this toxin is to cause to transude from the ultimate ramifications of the pulmonary artery, into the air vesicle, that peculiar coagulable exudate which gives us the so-called stage of red hepatization.

Knowing the pathological processes characteristic of this diplococcus toxemia and the effects which the symptom-complex proves, we have a demonstration through an analysis of these effects of what the cause of the malady is. Does contemplation of this illustration of cause and effect alter the point of view of the clinician when therapeutic procedure is a presenting problem?

When we know that pneumonia and pneumonitis are not synonymous terms, but that pneumonia is a systemic diplococcus toxemia, is there not cause for a more intelligent and masterful plan of treatment? Harrington Sansbury, in his *Principia Therapeutica*, sets forth in the prologue a governing fundamental principle that should underlie all therapeutic art, in the following words:

If it be true, as Plato, the master thinker, has said, that "an unexamined life is not worth living," then it must follow, since the greater contains the less, that an *unexamined practice is not worth practicing*. It is for this reason, and because we are in peril of being engulfed in the ever-rising flood of

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new remedies, that I have ventured to set down certain considerations, in the hope that they may prove of service to those who have undertaken to navigate the ship of health.

There are those who make light of general principles, knowledge of details their sole demand, but this point of view sees one side only of the shield, be it silver or gold as it shall please them; for whilst doubtless general principles without detail make but a foolish business, it is no less true that details without guiding principles yield but a busy foolishness. In default then of principles to guide, our ship of health is likely to find herself on a lee shore, in a welter of contending elements. We know that, in the main, the lines of the ship are good, likewise the materials, unless misfortune or deliberate misuse have befallen her, we know that she is built for the great waters and the "enlarged winds," even if she be not so built as to defy shipwreck. We know also that the adventure of the voyage must be made, and made singly though we put to sea in fleets, and, further, that not generalities, nor averages, will here avail, but *individuality alone*. This being so, our first care must be to make ourselves acquainted with the seaworthiness of the craft we have to captain. Upon this knowledge everything will depend in the hour of danger. When it is imperative that decision be taken; upon this knowledge we shall elect either to run before the wind and the pursuing seas, or, with shortened sail, and head to wind, ride out the gale.

The knowledge hereunto required is something more than of sail area and soundness of timbers on the one hand, and of force of wind and waves upon the other. *The ship of health has its own motive power within*, whose fires must be fed from its own stores. How to spend, how to economize, now with a free hand, now with most niggardly parsimony, all will depend upon circumstances, for example, whether the nearest port be within reach, or the position on the chart of life be such as to forbid the hope of any shelter till the storm be spent.

In this problem, the composition of forces is complex to a degree, and the Science of Medicine very far from its solution, but by as much as it is thus distant, it makes room for the Art of Medicine. This art, we are told, is long, but something of the journey has been accomplished, and something garnered by the way, and the injunction is laid upon us, *not to forget, not to pass by, not to misuse the stores of experience and of knowledge thus laboriously acquired*.

Two Types of Practice

Examining, then, medical practice is seen to consist of two principal types, preventive and curative, and to the latter space necessarily confines us.

Curative medicine is based upon sound knowledge of structure and function, anatomy and physiology, and, of course, on those fundamental phenomena that underlie the actions of respective structures or organs as well as of their relationship one with another. It is this relationship of function with function as controlled by organ and organ, that the much neglected principles of "physiological equilibrium" or balance is maintained. Such equilibrium or balance is health. Their char-

acteristics seen in the numerous manifestations of functional activity, demonstrate one complete and acting whole, of which each individual is an exemplification. The persistence with which the equilibrium or balance is maintained confronts us with phases of physiological equilibrium, which it is impracticable for us to touch upon here; suffice it to state that knowledge does exist of the fact, that when the equilibrium is disturbed by this or that toxic principle, the right or proper administration of medicine will, in a very large proportion of instances, restore equilibrium.

Thus we face the subject, and from a necessarily limited aspect, that of the galenicals. We first find these preparations official, next that this *materia medica* has a closely related pharmacopeia, which is the standard work or authority that directs how to prepare the sixty-four tinctures. Before examining these galenicals, permit allusion to another fact associated with physiological equilibrium, and that fact is, that when a disturbed equilibrium is restored it remains so indefinitely. Do not overlook another very important fact, to wit, that no matter how profoundly physiological equilibrium may have been disturbed, the cells, tissues, or organs affected tend to recover balance. This is another manner of expressing or defining *vis medicatrix naturæ*.

Restore Physiologic Equilibrium

Empirical medicine has discovered facts of equal importance, viz., that certain medicines administered in a disturbed physiological balance unquestionably do materially aid, very positively and powerfully, in restoring balance. Do not overlook the fact previously noted, that when physiological equilibrium has been restored, *it very commonly remains restored*. Illustrative of this truth is the relief of nerve pain by hypodermic injection of morphine. Not infrequently the relief from suffering which is thus so promptly secured or, preferably expressed, the equilibrium thereby reestablished, is maintained for years; indeed, indefinitely. Surely this immunity from a return of the symptoms cannot be due to a peculiar chemical or biochemical compound formed between the remedy administered and the protoplasmic elements of the nerve cells concerned. The only rational interpretation of the result is that the drug does not remain during all these years of freedom from suffering, but that the reestablished physiological equilibrium does so remain.

The well known maintenance of this physiological equilibrium which digitalis therapy

secures in cardiac and circulatory diseases illustrates the same fact, and because this vital balance has been overlooked or forgotten, some investigators have searched in vain for evidences of some peculiar biochemical compound in the excretions and secretions of patients and animals subject to treatment, and because the analysis has proved futile, the most untenable theories as to how medicines "cured" or relieved the circulatory defects have been advanced, and this to the prevention of proper treatment by those adequately informed as to facts.

These apparently irrelevant matters are brought to notice because they involve principles of mentation seriously affecting processes of conclusion regarding the use of all galenicals by clinicians, and thus are confidence and faith in the administration of medicines destroyed and therapeutic art degraded, and even too generally ignored. It is erroneous procedure that thus conditions the establishment of dogma, and founds so-called schools of medicine. Nay, more, and, what is worse, constitutes the cause of all causes resulting in the loss of confidence in the efficacy of *materia medica*.

Loss of Confidence Leads to Drug Nihilism

A little logical consideration of these briefly stated facts renders it easy to understand the unparalleled opportunities for the commercializing of innumerable "new remedies" which a thoughtless profession is only too ready to adopt in an offhand manner. The rewards of such a course are seen already in desertion from *materia medica* and the growth and development of drug nihilism.

The facts which empirical medicine have discovered, although largely incapable of being "scientifically" explained, are ignored, our idols are being cast down, iconoclasm is rampant, and charlatanism, ever alert to seize opportunity, is at the breach, and rushes in to gather and destroy.

Think of the infectious pathological processes endangering health and life that are subjected to treatments based upon the most absurd and baseless theories; how the facts of pathology are brushed aside by unprincipled and ignorant distortions of the facts of structure and function, and how, to those insufficiently possessed of honor and conscience, money gains lead astray; consider how commonly the horrible vortex engulfs the superficial and ill prepared, and finds doctors in large numbers abandoning well established standards and facts and following colors exponent of they know not what! The

fascinating fresh air, pure food, and sunlight slogan is emblazoned on their banners, and sophistry is shrewdly employed to destroy faith in the power of medicine properly administered, to relieve and cure disease.

If the *vis medicatrix naturæ* was not a stern reality, medical science and its art should not be, and the healing art should logically be regarded as vain and useless. Medicines, let it be emphasized, are realities and, properly used, are capable of restoring lost physiological equilibrium with as great certainty as their failure to achieve such a result, *if improperly administered*.

Remedies do not always effect their results by exerting locally their corrective forces and power, but by indirect processes, whereby interdependent and coordinating vital actions are set in motion, the entire human mechanism becomes involved, and thus equilibrium is restored. Again the inherent curative power, with which cells as well as groups of cells are endowed, is directly rendered active. It is the characteristic effects that give us the well known classification into, for example, sialogogues, diaphoretics, somnificants, analgesics, excitomoters, antispasmodics, oxytoxics, mydriatics, etc. When it is recalled how disease processes affect the secretion of saliva, the activity of the skin, sleep, the alteration of sensation, the reflexes, the pupil, etc., it certainly is rational to administer those medicines which experience has taught us, possess the power to correct the disturbed equilibrium of these respective functions. An analgesic properly administered relieves and cures pain; a cholagogue restores the bile functions of the liver; an inhibited kidney activity is overcome by a diuretic, etc. Thus is the *vis medicatrix naturæ* aided in effecting restoration of physiological equilibrium.

If clinicians would familiarize themselves with these facts and not be sidetracked by false gods, concentrate their intellects upon open minded study, the healing art would in the near future occupy her proper place in the esteem and confidence of suffering humanity, and find a trusting public placing within her keeping its most sacred and important interests.

Drug Variability Destroys Therapeutic Faith

These observations bring us to my theme, which deals with one potent cause of the loss of faith by the laity in medical art, as well as what is more disastrous, the loss of confidence in *materia medica* by a large proportion of the medical profession. Let us see why. The galenicals, being derived from the

vegetable kingdom, must vary in activity of effect, in the absence of standardization, with the natural variations in strength which characterize that kingdom. This fact of nature and, let it be repeated, it is a fact, well known, but too frequently overlooked or ignored, is that no two leaves, pieces of bark, rhizomes, seeds, or fruits contain a constant percentage of any active principle. No two apples, peaches, or grapes, for illustration, contain the same degree of flavor, sweetness, or sourness. Do not forget that contrary principles, as sweetness and sourness, coexist in the same leaf, seed, bark, or fruit. Think seriously of this, because the efficiency of all galenicals depends absolutely upon the proportion of the active principles contained.

Let it be emphasized that, in the absence of standardization, because in Nature there is no invariable unit of active principle in any given unit of crude drug, it is absolutely impossible to find two of any one tincture, infusion, or extract possessing uniformity of strength and, hence, of effect, in the same dose. Any galenical compounded by two different pharmacists, or any one galenical prepared by one pharmacist from two separate quantities of crude material, cannot possibly exert the same degree of action. Doses, therefore, other things being equal, must necessarily differ widely in order to secure uniformity of result. This being true, contemplate what is involved if the conventionally taught doses are adhered to, and the administration of galenicals is not intelligently supervised and modified to meet all the variations of condition; success cannot be secured by any haphazard prescribing.

The next fact to be considered is that in Nature we frequently find principles of a contrarily acting type in the one plant. Digitonin and digitoxin, veratroidia and jervia, serve to exemplify this. Contemplation of this fact may supply rational grounds for the necessary but apparently antagonistic prescription which competent clinicians at times recognize to be the best. Morphine in combination with atropine well illustrates this.

Complexity of composition, as well as antagonistic action, is well illustrated by that much administered remedy, opium. Its alkaloids present in ever varying proportions are morphine, codeine, narceine, narcotine, thebaine, papaverine, cryptopine, meconidine, and paramorphine, also meconic, thebolactic, and sulphuric acids, gum, extractive matter, glucose, fixed oils, a volatile odorous principle, and other comparatively unimportant

substances. What, may it not be pertinently asked, are you giving your patient, when you administer a dose of opium?

For a moment glance at a contrarily acting medicine, belladonna. Of the solanaceæ this group comprises *Atropa belladonna*, *Datura stramonium*, *Scopola carniolica*, and *Hyoscyamus niger*. These contain a number of alkaloidal active principles, but medicine has used atropine, hyoscyamine, scopolamine, and hyoscine. Atropine is certainly not somnifacient, but hyoscine and scopolamine are.

These active principles, like those of every galenical, vary in their percentage, therefore the question may logically be repeated, What is the patient getting when the galenicals of this group are administered? And, again, what results are to be anticipated if adherence to the conventional doses and frequency of administration obtains—twenty drops in water three times daily? Is the remedy useless, the doctor unfit, or the sufferer beyond relief and cure? One, but a less complex medicine, will be mentioned, *nux vomica*. Its active principles are strychnine and brucine and both are in combination with igasuric acid, a substance said to be identical with malic acid.

The action of a given galenical of this drug is fairly constant, and this being so, may cause the opinion to prevail that the same reliance that is placed upon this simple medicament is to be reposed in the more complex. A greater mistake cannot be conjectured; indeed, each remedy is a law unto itself.

Reasons for Galenic Variability

Sufficient has been said to demonstrate the truth of our title. These variations upon examination are discovered to differ so widely that a given quantity may be almost inert on the one hand, and approximately up to standard on the other. Digitalis leaves vary in price from forty cents to a dollar and a quarter a pound, for illustration, which may be one of the reasons for this very great difference, and serve as an argument for the prevention by law of the sale of any crude drug but the best.

Another grave and most serious matter that explains the wide variations in strength and, therefore, differing results in galenical administration, is disclosed by examining into the methods of manufacture of these galenicals. Let us select the tinctures. They are made by percolation, maceration, solution, or dilution. The menstrua used are alcohol, dilute alcohol of various strengths, and mix-

tures of alcohol, water, and glycerin. Years of experience have taught the pharmacist that widely different proportions of alcohol and water are requisite completely to exhaust all of the active principles desired, without also extracting the inert and undesirable matters. In the weak tinctures for which large doses are recommended, it not infrequently happens that "the alcohol effects more than balance those of the remedy prescribed." In such, the use of the fluidextracts obviates the undesirable stimulant action of the alcohol. Some tinctures are in danger of having their active principles neutralized by the alcohol.

Alcohol mixes freely with water, ether, and acetic acid, a number of volatile oils, and dissolves resins, tannic acid, chlorophyll, the alkaloids, and balsams, while dilute alcohol extracts the gums, extractives, chlorophyll, albumin, coloring matters, resins, volatile oils, alkaloids, sugar, tannin, and many other component principles of the vegetable kingdom. Remember also that these active principles, which vary so greatly in their percentage in the crude drug, also vary widely in their solubility in alcohol, water, and the dilutions of alcohol.

When all these facts are considered, also that active principles deteriorate, and that, therefore, tinctures lose strength with age; that being kept on shelves exposed to heat, light, and atmospheric variations—what do we administer when tincture this or that is

prescribed in conventional doses, and ordered to be given at conventional periods of time—"twenty drops, three times daily, in water." Is it any wonder that what is considered eminent authority teaches therapeutic principles which are flatly contradictory? In all literature can there be found such diametrically antagonistic teaching as in that of therapeutics? We all readily recall how eminent authority has taught that digitalis is a circulatory sedative, and equally eminent authority, the reverse. Other instances will readily occur to the reader.

Further space need not be taken, for surely sufficient has been advanced to sustain the fact that galenicals, in the absence of standardization, necessarily vary in strength and activity to such an extent as to render them unreliable for use where accuracy of administration and certainty of result are to be looked for.

Surely if these facts are facts, and who dares deny, the literature of therapeutics must be rewritten. Active principles must replace the galenicals and their physiological actions determined, standardization must generally obtain, so that by intelligent use the foundations of the healing art will be securely laid, and the fact that there are agents capable of relieving and curing disease will be accepted by the medical profession, and the treatment of afflicted humanity will be based upon laws, conformity with which is essential for the highest success of the clinician.

The Nonsurgical Treatment of Cancer

By GEORGE N. MURPHEY, M. D., Paducah, Kentucky

EDITORIAL NOTE.—The average person fears the knife, even in the face of death. This is one of the reasons why nonsurgical methods of treating cancer are and will continue to be popular with the laity. But are such methods effective? This is the question which the physician asks. Doctor Murphey answers in the affirmative, and he presents arguments, facts, and results which are of exceeding interest to say the least.

IN THIS paper I shall direct attention to some methods of treating cancer that have not received the favorable recognition from the medical profession they deserve because of their importance; and I shall also prove by clinical evidence that surgery is not the only "rational" means of treating malignancy, even when the most perfect. And let me say here that I have no prejudice against any treatment of cancer that can successfully combat its ravages, be it surgery or what not. Recently I read an article, on the surgical treatment of cancer, by Dr. R. L. Ireland, of Louisville, Kentucky, and published in *The*

Kentucky Medical Journal for last August. The burden of Doctor Ireland's paper was that, emphatically, surgery is the "only rational" treatment for cancer, and, to make his argument irrefutable, he quotes Dr. Wm. J. Mayo as saying that surgery is the one "essential" means of treating this dreadful malady. Doctor Ireland did not state the number of cancers he had removed by operation, nor the percentage of cures he had made. If he has met with any marked success, however, his experience is at variance with that of some of our best surgeons, namely, Doctors Gross and Agnew, of Philadelphia.

Dr. Samuel Gross stated sometime before his death that he had amputated more than four hundred cancerous breasts and that all of these women, save one, died of a recurrence of the disease inside of three years. Doctor Agnew is on record as saying that he had removed enough cancerous breasts from women to fill an ordinary cart, and had failed to save a single life. These quotations are cited merely to show the actual results of some good surgeons in this work, and not at all to throw doubt upon the experience of anyone else.

I am surprised that the medical profession could for so long overlook the nonsurgical treatment of cancer that is in daily use by such distinguished medical specialists as Dr. A. R. Robinson, of New York, and Dr. G. Betton Massey, of Philadelphia. In 1894, while attending the New York Polyclinic School of Medicine, I heard Doctor Robinson lecture on the treatment of cancer with chloride of zinc, hydrate of potassa, and arsenic.

On my return home, Bowling Green, Kentucky, at that time, I soon found opportunity to try the above-named drugs in the treatment of cancer. Out of the first 7 patients that I treated, 6 of them were permanently cured. The success in these cases brought me others, and in three or four years I had treated probably 50 or more cases of cancer, curing about 75 percent of them. In later years, my percentage of cures has been, at least, 85 percent; which is due to my better judgment in selecting cases for treatment, and also to better administration of the remedies used. I regret that I have lost some of my records in this work, and, therefore, can not give exact figures to show the successes and failures which I have made; still, the above-given percentages are approximately correct.

Successful Use of Caustic Potassa and of the Galvanic Zinc Needle

During my experience in treating cancer I have given the following agents more or less trial, to wit: Caustics, knife, x-ray, radium, high frequency electricity, Paquelin cautery, and the galvanic current applied with zinc needles. All these I have now abandoned, save caustics and electric needles.

Having read a good deal of Doctor Massey's success in treating cancer with the galvanic current and zinc needles, I went to Philadelphia to see this treatment demonstrated. I was well pleased with it, and for the past five and a half years I have used the needle in my own practice with satisfactory results, but not to the entire exclusion of

some other remedies. The needles can be used in certain locations where it would be impossible to employ the caustics, only to a limited extent, namely, cavity of the mouth, nose, vagina, rectum, and eyelids.

Surgeons who write upon this subject have a good deal to say about removing every diseased cell, and so on. I admit, where this is accomplished, every case thus operated upon will result in a permanent cure; when, however, the healthy and the diseased tissues are intermingled to an unknown extent, surrounding malignant growths, the microscope alone can differentiate between the two. Then how can the surgeon know when he has succeeded in removing every diseased cell? He can not know, and his judgment alone can guide him in the operation. If there be one cancer-cell left in the wound or outside of it, the trouble is certain to recur soon or late.

Doctor Robinson says that the inflammation resulting from the caustic application will devitalize the cancer-cell, for quite a distance beyond the necrosed area in the inflammatory zone, and Doctor Massey claims the same action for the mercury-ions that are driven through the tissues from the zinc needle by the electric current. Whether this theory is true or not, clinical results seem to support it.

Basing my opinion upon a personal experience of twenty years in treating malignancy by both surgical and nonsurgical means, I can not subscribe to the belief that surgery is the only "rational" or the "one essential" means of treating cancer, or even that it is as good as some other modes of treatment. Admitting that surgical and nonsurgical treatment of cancer should yield equally good results, still, I should feel impelled to accord nonsurgical measures first place in treatment, for the reason that, I dare say, there are twenty or more persons who would take nonsurgical treatment for one who would submit to a knife operation.

I will detail the treatment of a few cases of cancer with results. In one case, I present three illustrations of the patient, to show exact conditions before and during treatment. These pictures tell their own pathetic stories more graphically than I can pen them.

A Few Examples From Practice

Case 1. Farmer, 50 years old, cancer of upper eyelid, growth size of thumb-nail, much thickened, and badly ulcerated. The eye was closed all the time, owing to the condition of the lid. The patient was chloroformed, then three zinc needles which had been coated with metal mercury, were thrust through the full

breadth of the lid. The needles were connected by No. 32 insulated copper wire to the positive pole of the wall plate, while a distributing pad of cotton, wet with a solution of sodium chloride, was connected to the negative pole of the wall-plate and placed on the back of the patient's neck. A current of 145 ma was passed for thirty-five minutes. The growth was entirely devitalized and sloughed off in about ten days. The cure was perfect, for four and one-half years have elapsed since that treatment and the disease has not recurred. An effort was made to save the patient's eye, by passing a thread through the margin of the lid, at its center, so that it could be lifted free from the eyeball, but the tissues were too rotten to hold the thread and it pulled out, hence the organ of sight was unavoidably sacrificed.

Case 2. Lady, 69 years old, cancer of mouth on top of gum, where the molars had been extracted. The growth was one inch in length, covering the full width of the gum and jutting one-fourth of an inch above its level, fungoid in appearance and sensitive to touch. After the patient was etherized, with a mouth-gag in position on the opposite side, to hold the jaws apart, two spade shaped zinc electrodes coated with mercury, 1-3 of an inch wide and 1-2 inch in length were thrust through the growth until their points rested firmly on the jaw-bone, then connected with the wall-plate, as described in Case 1, and a current of 100 ma passed for one hour. The diseased tissues necrosed and soon sloughed off, and were quickly replaced by new healthy growth. This was done thirteen months ago, and the growth has not reappeared. The patient's mother died of cancer, and a first cousin died of cancer of the mouth. I mention this to show the part heredity plays in malignant growths.

Case 3. Farmer, 72 years old, small cancer on side of tongue, caused by biting it in chewing. Two applications of fuming nitric acid, made one week apart, wrought a cure in four weeks. This man was cured twenty-three months ago and has had no further trouble since then. He lost a first cousin through cancer of the breast.

Case 4. Farmer, 69 years old, cancer involving floor of the mouth outside of gum, extending from first molar to wisdom-tooth and well to cheek, latter in contact with lesion. This patient was treated exactly as No. 2, except that 8 zinc needles the thickness of darning-needles were placed in the affected tissue and a 100 ma current was passed for seventy-five minutes. Three subsequent

minor treatments, given a month apart, seem to have effected a good cure. This patient was treated last autumn, and at present there is nothing to indicate a recurrence. From loss of tissue, the mouth is drawn somewhat on the affected side. The patient's mother died of cancer of the breast.

Case 5. Mrs. J. P. L., 50 years old, cancer of cheek. Her family physician had removed the growth with the knife, but soon after healing it reappeared. The lesion, when I saw it, was about the size of a dime. I injected a 4 percent solution of cocaine well around the growth, then cauterized it with a stick of caustic soda, until I was satisfied I had destroyed the growth with its outlying cells, or roots. The patient made a good recovery, with only a small scar remaining. This was done nine months ago, and as yet there is no trouble, and not likely to be. This case could have been treated with the needles just as successfully, but it would have necessitated general anesthesia, which I always avoid when possible. The patient's



Fig. 1. Showing Case 6 at the beginning of treatment.

grandmother, mother, and one sister died of cancer.

A Bad Cancer of the Face

Case 6. Mrs. F., 74 years old (shown in the photographs), cancer on side of face—a papilloepithelioma. This growth started as an ordinary mole and reached its maximum size in twelve months. In its largest circumference it measured 9 inches, and was about 3 inches in length, and its base was 2 1-2 by 3 1-2 inches. The dark tissue at its apex was in a state of necrosis and would soon have sloughed off spontaneously had it been left alone. When the patient was chloroformed,

5 flat zinc needles, the thickness of stout telegraph-wire and 3 1-2 inches long, were pushed through the base of the tumor-stump against the face, and a 140 ma current was

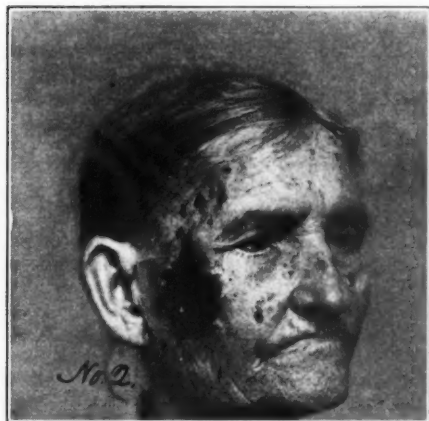


Fig. 2. Tumor sloughed away. Photograph taken twelve days after Fig. 1.

passed for sixty-two minutes. At that time respiration became so much embarrassed that the current was turned off and further treatment abandoned; however, the devitalization was sufficient to destroy the tumor, and it sloughed enough in twelve days so that by clipping a few tissue bands at its base it came away. I then waited, to note results, and in three weeks it had healed nicely from every side, except an area at the middle inner edge of the size of a silver dollar. In this part I suspected diseased tissue not devitalized at the first treatment, and to this I applied a zinc-chloride paste for twelve hours.

That was on February 4, and today, March 15, there remains a small lesion, the size of a silver quarter, which I believe to be cancerous. I again have applied the zinc paste, with instructions that it remain on for twenty-four hours. This case I do not report as cured, but merely to show the conditions under treatment to date; nevertheless, I hope for a complete cure soon, as there is no glandular involvement, so far as I can detect. The dark spots, scattered over the patient's face, as seen in illustrations No. 1 and No. 2, are what are known as precancer keratoses, and which frequently result in cancer. I removed these and applied nitrate of mercury, to prevent their return.

Here is the other side: Mr. B., a ship-carpenter, of Metropolis, Illinois, came to see me in April, 1909, for a cancer on his neck.

The growth had been removed by a surgeon, but had returned. Owing to the proximity of the growth to the carotid artery, I thought the zinc needles could be employed with greater safety and accuracy than the zinc paste, and, as I had not seen the needles used at that time, I advised the man to let Doctor Massey, of Philadelphia, treat him. However, a few days afterward I decided to go to Philadelphia myself and see the work done. Making a trip to Mr. B., to persuade him to accompany me to Philadelphia, I found that he had gone to Rochester, Minnesota, to have his cancer removed by surgery. A few months after Mr. B. had returned from Rochester, he came to my office on a friendly visit, to show me the results of the operation. Examining him, I discovered a small lump beneath the skin, just outside of the scar, and, so, told him that the malignant disease had reappeared; but he seemed to discredit my statement. Some months later, I learned that he was taking x-ray treatment from one of our city physicians for his cancer. Probably



Fig. 3. Photograph taken two months after Fig. 2.

eighteen months thereafter, I was in Metropolis on business and there was told that Mr. B. had died of his cancer. I refer to this case, to show that surgery has its record of failures in cancer other than those of the female breast, even when the operation is done by the best of surgeons.

In Recapitulation

To recapitulate. At a safe estimate, I have treated at least three hundred malignant growths, during the past twenty years, with approximately eighty percent of cures. Out of all those whom I have treated and dismissed

as cured, sixteen have had recurrences of their former trouble. Four of this number, who took a second treatment, have remained free of cancer. Three others whom I felt certain I could cure by further treatment refused my services; one of these died of cancer, the other two I lost sight of and can not report final results. All the rest died of cancer save one, who still survives, but is incurable.

I have amputated two female breasts for cancer. One of which received little, if any, benefit from the operation, and died a few months later of her cancer. The other was doing nicely several months after the operation, with no indications of a recurrence, so her family physician informed me. This case was operated on nearly twelve years ago, and as I have heard nothing from it for more than eleven years, I suspect that the patient has succumbed to a recurrence long ago, as the disease was well advanced when I did the operation, and I have never known such a case to result in a permanent cure. If cancer of the female breast is to be treated with any hope of a permanent cure, it must be done before ulceration or metastasis occurs.

The Paquelin cautery I used in one case, but it only aggravated the trouble and the patient soon died. I have employed the x-ray and radium in a few cases without benefit. High frequency current has cured a few small cancer lesions in my hands, but it possesses no advantage over some other remedies, which are just as efficient and less objectionable to the patient. Arsenical paste, made according to Doctor Marsden's formula, I consider dangerous, and I no longer use it. I believe I lost two patients, both feeble old women, who died a few days after I used arsenical paste on them, with severe gastritis. I now use only caustics and the zinc needles with electricity. In this paper I have used

the name cancer to designate all varieties of malignant neoplasms.

In anticipation of some criticisms that might be made by those who are unfriendly to my views expressed in this paper, I make the following explanation, to-wit: The clinical cases detailed above have none of them yet passed the five year limit generally required to test the permanency of a cure, although I have never had a recurrence later than nine months after a supposed cure. I cite these cases because they are of more than ordinary interest, owing to their location and the results obtained—three in the cavity of the mouth, one on the eyelid. No. 5 I have referred to only to show that surgery failed where a stick of caustic soda succeeded with one treatment; No. 6 for its great size, age of patient, and the probable good result which may accrue from treatment. I could give, if necessary, a large number of names, with postoffice address, of persons whom I have treated from five to twenty years ago, that are free from a recurrence to this day. If any doubt my diagnosis, I will say that I have had a number of specimens of growths which I have treated examined by competent pathologists, who have upheld my diagnosis in every instance. I have preserved a specimen from case No. 6 that any one can have for a section examination, if he wishes it.

My defense of non-surgical treatment of cancer will no doubt be resented by some, but I feel certain that the rank and file of the medical profession will accept my views when they have given both methods of treatment a fair trial. My personal experience, as recorded in this paper, can be verified in every instance by clinical evidence, and I fear no successful refutation of it. The evidence is all in, my argument is concluded, and I rest my case with the profession, and await its verdict.



Leprosy in the Philippines

Experiences With the Disease Among the Savage Mountain Tribes

By THOMAS E. MOSS, M. D., Kevil, Kentucky

Formerly Surgeon in the Philippine Constabulary; later District Health Officer in Northern Luzon

EDITORIAL NOTE.—This concludes Doctor Moss's fine article on Leprosy, begun in our last month's issue. We are fortunate in being able to announce another series of articles by Doctor Moss, dealing with phases of medical practice in the Philippine Islands.

[Continued from page 329, April Number]

The collecting of lepers in the mountainous interior of the Philippine Islands was an arduous and dangerous undertaking; much more so than down on the coast among the Christians, who are used to Christian methods, and where I had all the soldiers I wanted to assist me. Whereas, up in the mountains among the savages, I could not use soldiers with any degree of success; for, when I would approach a savage town with my soldiers, the inhabitants would see us from afar and know that something was on foot. So, they would be on the alert, and if there were any lepers or criminals among them they would hide or take to the mountains.

These savages always have a few sentinels posted on high points from which they command a view of all trails approaching the place. These sentinels generally are old women whose eyes have not become dimmed and whose lungs are good. Many times the inhabitants of the town owe their lives to these women, who, upon the approach of an enemy, give the shrill cry of warning which, if it is a war-party that approaches, is answered by the war-cry of the town; but also by the defiant cry of the approaching war-party. The mountains take up these cries and throw them back and forth across the gorges, until it makes one's flesh creep and crawl to hear it.

Another reason why it was impracticable to use soldiers was, because the soldiers at the military posts in the mountains have been recruited from the neighboring savage towns; consequently, I could not select six soldiers to go with me without five of them being enemies to the objective town; for, every town is against every other town. And, while the soldiers themselves give up all animosity toward each other when they enter the service, the people of the towns look upon the soldier who has been recruited from any town but their own as an enemy. So, I had to use a good deal of judgment and tact at every turn; and even then, with the best-laid plans, I often met with mishaps. The word

"mishaps" is a very charitable one; for, I have had boulders rolled down on me, have been cut, speared, and poisoned, not to mention the times when I was not cut, speared, and poisoned when the attempts were made.

Instead of taking soldiers with me, I usually took my trained Igorote. This man was, at one time, a head-hunting savage and roamed the mountains doing his allotted part in perpetuating the feud which had existed so long that he had forgotten when it started or what it was about. But this would be another story altogether. Let me just say that he came into my possession soon after this mountainous interior became a part of my jurisdiction. Dacayon was his name, and he is seen in the picture standing on my left, with his head-axe raised above my head. He is armed with a revolver also—a 45 Colts, the old-fashioned single-action kind. (This, by the way, is the best, not even excepting the new 45 automatic, which is used in the regular army now; for, the automatic will fail to eject the empty shell; after it has been fired for a long time it will "hang" and may cause the death of the owner, who may not kill with the first shot and not have time to unhang the mechanism. I used a 38 automatic when I first went to the islands, but had to discard it for a single-action revolver.) The savage on my right is the one who went with me to carry my blanket and food. He would fight, too, if the occasion demanded, but could not make an arrest, as could Dacayon, for I had had Dacayon appointed a deputy marshal, as already mentioned.

The Dreadful, Mysterious Gorge

Forty-five miles up in the mountains is the savage town Lobo, situated at the head of a draw made by a V-shaped arrangement of mountains. In this part of the mountains the geological formation is almost entirely coral, wherein are found caves of most wonderful beauty. One especially comes to memory, as it figures in this narrative.

During the upthrust of prehistoric times, the topography of this part of the island was ar-

ranged so that three mountain ranges were placed in a triangle; the resultant long valley formed by two of them comes down and ends abruptly at the base of the third, and one riding up the trail on the ridge and looking down would think there was no outlet for the river which flows down the valley and disappears at the base of the range upon which he is riding. Upon closer inspection, he will



Fig. 1. A well advanced case of leprosy. Note the nose and ear lesions.

see why there is no lake formed by this river, for it enters a monstrous opening and is lost to sight. One may travel this country for weeks and never have any idea of what becomes of this river, unless some one tells him, for there are but few who have had the bravery to climb down off the trail and enter this great opening. Three men, to my knowledge, have done this.

At certain times, during the dry season when the river is low, one may enter this cavern and, if he does not get killed, he may make his way through wonderful chambers, in which the light from the pine torches is reflected a million times from the crystal-like walls, until it seems that a blaze of glory is illuminating the place. The whole thing is so wonderful and weird that it takes strong nerve to enable one to follow the stream on down over waterfalls and whirlpools, around bends and through miniature lakes. One's

nerves are apt to fail him down here in the bowels of the earth when he realizes that he is beneath a whole mountain range, with millions and millions of tons of rock and earth above him, and that at any moment a cloudburst may occur up at the head of the valley where the river has its source and flood the whole cavern from floor to roof.

You may not catch the meaning of my words, but, if you had lived in this land of "spirit worship" for any length of time, you would have no trouble in understanding; for, one can not live among these people long and listen to their weird tales and see their practices without absorbing some of it, for there is an indescribable something in this tropical country that takes hold of a man, especially if he is exposed to the danger of unseen death, as is the case many times, for the mode which the savages pursue in killing is to lie concealed by the side of the trail and spear one as he passes.



Fig. 2. Body lesions are shown clearly in this picture.

When a man first comes to this part of the country, he does not believe all this, but after he has seen a number of headless bodies he begins to wake up to the reality of the thing and in some instances becomes as superstitious as the savages. I know that I have, many times, put my trust in things supernatural, for there was nothing tangible to go by at

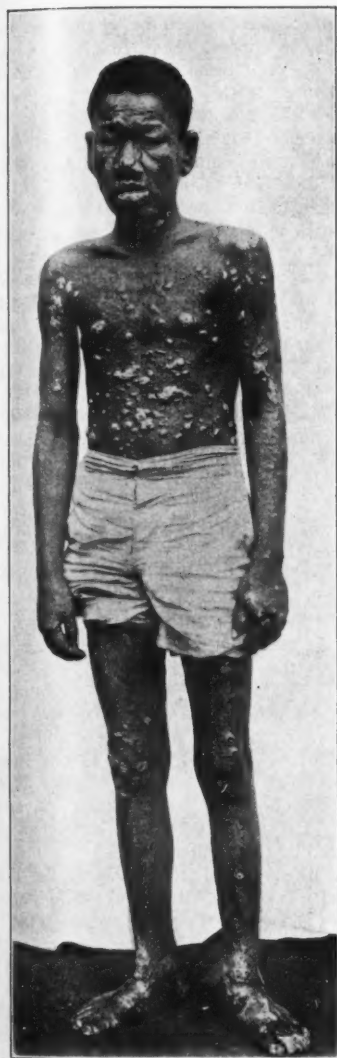


Fig. 3. Same patient as the preceding, showing extremities

those times. You may laugh if you wish but you would not have laughed if you had followed me, and you not only would have not laughed, but you would have been glad to have had something to lean upon, even if it was a myth.

After traversing this cavern for the distance of a mile, one may look up and see the light of day filtering down through a jagged opening in the vault. This opening has been utilized by an Episcopal mission, which is

situated up on a plateau on this mountain, to get rid of its sewerage. One may enter the cavern at this point with the aid of a long rope, for the cavern has not begun to slope downward to any great extent before passing beneath this part of the mountain. A little farther along its course it dips down, and by the time one reaches the other opening he has descended three hundred feet or more and has reached another river, having passed completely through a mountain range and traversed a distance of fifteen miles. He has reached a totally different country, with a different slope and peopled with another tribe of savages, with ways and dress of entirely different character; he has reached the country of the Bontoc Igorotes, who have the reputation of being the fiercest fighters in the mountains. This underground river emerges into the Bontoc River through an opening very much smaller than the one by which it enters and lies below the waters of the Bontoc River except at very low water-mark. There is not one person in fifty who knows of this opening, for one may pass down the trail which follows the river a hundred times and never suspect that the underground river flows into it. All this may seem beyond the subject, but around it the next episode centers.

The Two Wealthy Lobo Victims

In the town of Lobo lived two very rich savages, brothers, both afflicted with leprosy, but who had evaded the authorities for many years. These men's rice-fields were near this underground river just described, so also were their homes, and whenever a leper-hunt was started they would secrete themselves in this cave, remaining there until the hunt was over. They always escaped, as no one would dare death by going in after them; they could not be starved out, for they always took along plenty of food, or, when that gave out, their servants, through openings in the roof or in some other way, supplied them in the night-time. They could not be followed, for no one dares to travel in these mountains at night. When night comes in these mountains, it grows dark suddenly, and it is worse than dark, for the clouds form an impenetrable mist. Now, when one speaks of clouds, people think of something 'way up in the heavens; but, in the mountainous parts of this country, the clouds at night are right around and about one. But even in the day time one may look up and see clouds enveloping some of the highest mountain tops, and, though they are so high above, he knows that

they will steal back down and cover the ground at his feet like a blanket as the shadows of evening begin to fall.

Of course, I heard of these two lepers as soon as I took up my official position in this part of the country, for everyone who had had anything to do with the failure to apprehend



Fig. 4. Leprosy is a living death, when advanced.

them took particular pains to tell me about them; they wanted to see me fail, as had they. Being of Scotch-Irish blood, I took the dare and soon made it so uncomfortable for those two men, by my unremitting pursuit, that they sent me word they were going into the cave armed and would kill anyone who came to get them, determined not to be taken away by the officers.

The Punishment for Headhunting

They had no idea what a leper colony was; they simply knew that those of their people who had this disease and were caught by the officials were taken away and never returned to their cloud-kissed homes to breathe the air of freedom; when a warrior was taken, no one came to fill his place, to wield the spear and the headax in defense of his home and loved ones; there would be no one to send in his stead, to fight a hostile town; no one to take his place in a headhunting expedition, to bring a head to be used in the yearly

sacrifice that had to be offered up to the spirits to appease them, that they might let the rice and other crops grow to maturity and bring forth a good harvest to feed and fatten the men, women, and children of the settlement that they might grow strong and multiply, and fight and die as their forebears had done for uncounted generations before them. They knew that, if a man was taken from them who had, as yet, not avenged the death of a relative killed by a hostile clan, there would be no one to carry on the death-feud and clear the good name of the town from the disgrace of having lost a head to another town; for no one is permitted to let a feud die out until the blood-debt is paid to the fullest extent.

It must be remembered that these reprisals are continued even though the law punishes this feudism with life imprisonment. A large penitentiary has been built up in the mountains at the town of Bontoc, because the savages can not live down in the lowlands, where the temperature is always high, and they soon pine away and die. But here, in the mountains, those imprisoned for killing fellow men can breathe the mountain-air and see the towering peaks to sustain them, while always they have the hope of being able to escape. They will persist in attempting to escape, although it means certain death; for, when a prisoner escapes, the soldiers, who themselves are savages, are turned loose to hunt them, and it is like turning a pack of bloodhounds loose; they invariably bring the man back dead, swung on poles carried by two of them.

In the case of the savages, the death-penalty is always commuted to life imprisonment, the government having recognized that it would not be right to hang them, as they are only following their teachings and religious beliefs when they kill an enemy. It is the government's intention to keep these savages in the penitentiary for ten years, when they will be permitted to return home on parole; it being hoped meanwhile to break up the headhunting among the natives. Moreover, these prisoners have been taught trades while in confinement.

Dacayon's Shrewd Scheme to Ensnare the Two Fugitives

When the message from the two lepers of Lobo was brought to me, I was at a loss as to how to proceed to capture them. So, I held a consultation with Dacayon, my native aid, and the other savage, who served as a carrier. Dacayon said that he would go into the

cave alone and get the men, but that in all probability there would be no use in sending them to the leper colony after he had brought them out—but just to bury them some place near the mouth of the cave. You may think this was a simple thing to say; but, just stop a moment and think: would you like to go into a cave to fetch two unwilling, armed savages? I admit, Dacayon said it very simply, and had I said, "Go," he would have started at once, inasmuch as he already was armed and that was all the preparation he thought necessary, knowing very well that the chances were against his ever needing anything but the revolver; food and extra clothing were superfluous.

I knew very well the risks Dacayon would run, and if he started out I never should have expected him to come out of that cave alive. I did not have any doubt but that my trouble with these two lepers would be at an end; still, I did not want to lose Dacayon or injure the two men, if I possibly could avoid it. So, I told Dacayon he would have to hatch up some other scheme to capture the two.

Dacayon asked time until the following morning, when he would report. He unbuckled his belt containing his revolver and cartridge-box, handed them to me and asked that I give him two dollars. I did not exactly understand what all this meant. I recalled that I had told him, when I had him appointed a marshal, that I did not ever want to see him drunk while he had his badge and revolver with him, or, if he wanted to visit the savage part of his home town and take part in any of the ceremonies, he first must deliver up his revolver and badge. These ceremonies of the savages always meant plenty to eat and drink, and everyone of them got drunk. The drunk, however, does not last long, as they use an alcoholic drink made out of sugarcane, and, although it makes one drunk very quickly, its effect does not last over an hour or two.

I gave Dacayon the money requested, took his revolver, and told Supli, my carrier, that he might go along if he wanted to, but to be back the next morning. They took their spears and axes (which they kept behind my desk when they were not on the trail) and left me with the assurance that they would not get into any trouble and would be back in the morning.

I did not sleep very much that night, trying to evolve a plan of my own as well as endeavoring to fathom Dacayon's proceedings. Getting up at daylight, I went to the hospital, thinking to find my two men, for it is

the custom of the savages to rise with the sun and sit in front of their houses in the warming sunshine. But there was no sign of them, and at 8 o'clock I went back to breakfast. I did not like the looks of things, and feared that my men might be going after the lepers without further ado. After breakfast, Dacayon not turning up, I sent another corpsman to the savage part of the town to look for them and also to bring me the "presidente" (chief) of the savages.

The town of Bontoc is the capital of the province and, while the old savage portion is just the same as ever, the new, American section looks like some fashionable watering-place. Here, my hospital was located. At 9 o'clock, the corpsman returned with the presidente, who, after being questioned closely, told me that Dacayon and Supli had gone the evening before to the town of Lobo, but had not taken their spears or axes, nothing but an umbrella apiece. I was more puzzled than ever and came very near queer-



Fig. 5. Look at the face and hands of this poor woman

ing the whole business by taking a detachment of soldiers and storming the cave; for, I thought that my two men had gone in after the lepers, as the cave lay between Bontoc and Lobo. However, upon reflection, I decided to wait awhile, knowing that it would be too late now. If the two actually

had gone into the cave, they either would have been killed, or would be on their way back to Bontoc.

It was 4 o'clock when the two men walked into my office. And this was their story: They had gone into the savage part of our town and held a consultation with the old men, and they advised them to proceed to Lobo, as nothing was to be learned in Bontoc. They had left their spears in Bontoc, as I was informed. They carried the umbrellas, in order to make it appear that they were simply traveling down to the coast, as they often had done. They reached Lobo at nightfall and asked permission to remain there for the night. They bought rice and cooked it, and shared it with the headmen of the town. They then asked whether they might buy some "tapouy," an alcoholic drink made from rice, but much milder than that made from sugar-cane. After this drink had been disposed of, the headmen brought out some "vassie" (a sugar-cane spirit). Then Dacayon offered to buy a big jar of vassie and suggested they have a feast, the people of the town to furnish the rice and a hog. These jars hold from twenty to thirty gallons, and by the time it was half empty most of the folk were drunk and bragging of what they had done in the way of headhunting, and other deeds; this being their custom.

Now Dacayon began to tell of how many heads his father had taken before he was taken away by the health-officials, who had accused him of being a leper, and how he hated the authorities for sending his father away, and that, if he, himself, had been big enough at that time he would have killed all of the officials and set his father free; adding that, of course, his father would have had to hide out somewhere, but, then, that would have been better than being gone forever. Gradually he led up to the two lepers of Lobo who were hiding at that time in the cave, and it was decided that some of the vassie and hog were sent to those two hiding men.

However, most of the people were too drunk to make the trip. Thereupon Dacayon said he would carry the food to the lepers in the cave if one of the lepers' servants showed him the way. Accordingly, the servant was called, who took Dacayon into the cave by way of a small opening unknown to anyone but the inhabitants of Lobo.

They found the lepers in a small room away up near the top of the roof of the cavern, where the water never reached even at the highest flood time. Dacayon and the servant

sat by and talked while the two fugitives finished their meal and potation, staying that they might carry back the utensils in which the stuff had been brought. Upon leaving, Dacayon presented the larger of the lepers with his umbrella, telling him that he could use it in traversing the cavern and not get wet from the moisture which dropped from the roof in certain places; he also showed him how to open the umbrella, and all about it. Why, do you suppose, Dacayon did this? Well, wait and see. I did not know, either, when he was telling me—I had not the slightest idea.

When Dacayon had finished explaining the umbrella, he picked up the food-vessels and, with the servant, went back to the town. Meanwhile he found out from his companion how often and at what times he carried food to the lepers. Dacayon slept in Lobo that night and in the morning went up over the mountains as if he were going on toward the coast; however, as soon as he was out of sight, he switched around and returned to Bontoc.

How It Worked Out

What good had all this done, I asked Dacayon, and how were we to get the quarry? He said, I should start toward the coast with the lepers I already had, while he and Supli would go by the trail which led near the cave, get ahold of the men, and then meet me at Sagada with them. So, I gave him his revolver and belt of cartridges and told him that he was at liberty to do as he pleased until the morning following the next day, when I should be at Sagada with my consignment of lepers, and would expect to find him and Supli there with his two from the cave.

Upon reaching Sagrada, sure as you're born, I found Dacayon with the two lepers handcuffed to each other, with leg-irons on their feet, and tied to a post, with Supli guarding them with his spear. Dacayon, with Supli, had gone into the cave by the route which he had learned when he went in with the food. Dacayon had taken off his revolver belt and all surplus things, placed his revolver inside of an umbrella, and, with Supli in the rear with his spear and leg-irons, he had taken a bowl of rice in which he had concealed two pairs of handcuffs and gone in as softly as possible, so as not to waken the lepers, whom he hoped to find asleep, it being night when he entered. He was fortunate enough to find both sleeping, but before he could get close enough to them they awoke. Still, seeing who it was, and the bowl of rice,

they did not reach for their weapons, but bade Dacayon come near the fire, which one of them rekindled.

Then it was that Dacayon set down the rice, reached into the depths of his big umbrella, took out his "45," and told the men not to move or he would have to send them to join the spirits of their dead. Now Supli came forward and put the handcuffs on them, while Dacayon kept them covered with his revolver; then, with Supli and his spear marching in the rear, Dacayon led the way down to the mouth of the cavern; how-

ever, before leaving the cave, he affixed the leg-irons, so as to prevent them making a break for liberty.

* * *

Now, good reader, this is *not* the way it happened. I must leave that to your imagination. The fact is, that I did not find Dacayon at Sagada with the lepers. I found Dacayon, but no lepers. And when I asked him what had become of the lepers, he said, as he wiped the blood from a spear-thrust in his shoulder: "I sent them to Cullion—Supli went with them."

Gonorrheal Arthritis

By WILLIAM J. ROBINSON, M. D., New York City

Editor of The Critic and Guide, and the American Journal of Urology; Author of "Never Told Tales" and Other Books

GONORRHEAL arthritis, or gonorrheal inflammation of the joints, is not a very frequent complication of gonorrhea. It occurs in about 2 percent of all gonorrheics and is encountered much more frequently in the male than in the female sex, not only absolutely—for this is self-understood, so many more men having gonorrhea than do women—but also relatively.

But he whom it does attack has the devil to pay. While just lately the results of our treatment are better than they used to be, nevertheless there still are cases which resist every kind of treatment, and I know personally of several patients whose careers have been ruined by this complication. One case is that of a young pianist, very talented and most promising, who had to give up his hopes and his profession on account of an ankylosed wrist-joint, resulting from gonorrheal arthritis. Another is that of a fairly well-known surgeon, whose finger-joints became thickened and somewhat ankylosed, and who had to give up surgery and fall back upon internal medicine, in which he is much less of a success than he would have been in surgery.

Etiology

At first no causal relationship was thought of between joint inflammation and gonorrhea. When in a patient having gonorrhea there developed inflammation of one or more joints, it was considered merely a coincidence. Any man can contract rheumatism, and an inflamed joint during the course of an acute or chronic gonorrhea was considered merely rheumatism, for which the gonorrhea was not in any way responsible. Later on, when cases

of arthritis in the course of gonorrhea were seen to be too frequent to be accounted for merely by coincidence, it was thought that the gonorrhea acted as a predisposing cause by weakening the organism, reducing resistance, and so on. Finally, however, gonococci were found in the exudation around the joints, and it was then seen that the gonococcus plays not merely a predisposing but a direct role.

It must not be thought, however, that in every case of gonorrheal arthritis gonococci may be found. Sometimes other bacteria, such as staphylococci and streptococci are present; in still others no bacteria whatever can be demonstrated. Here it is assumed that the inflammation is caused, not by the gonococci themselves, but by the toxins generated by the gonococci.

Nor must we blindly assume that every inflammation of a joint occurring during the course of a gonorrhea must, necessarily, be gonorrheal, for a patient having gonorrhea may, the same as any other man, get an attack of acute inflammatory rheumatism. This must be borne in mind, to avoid regrettable failures in practice.

While any gonorrheal focus in the genito-urinary tract may give rise to gonorrheal arthritis, it is particularly frequent where there is prostatitis or seminal vesiculitis. The latter is considered the most important etiologic factor, on account of the rich network of blood-vessels which surround the vesicles

Symptoms

Points of differential diagnosis between it and acute rheumatism or rheumatic arthritis

are: the presence of gonorrhea; the fever is much higher in inflammatory rheumatism than it is in gonorrheal arthritis; also the pain is more severe and more joints are affected; while in gonorrheal arthritis two or three joints may be affected, as a rule only one is involved.

The frequency with which the various joints are affected is as follows, in the order named: Knee-joint, ankle-joint, wrist-joint, finger-joint, elbow-joint, shoulder-joint, hip-joint, jaw. The knee-joint, as said, is the most frequently attacked, furnishing as many cases as all the other joints combined.

The symptoms vary from slight transient pains in and about the joint, without any inflammation, to severe inflammation with effusion. The effusion may be serous in character, serofibrinous or purulent. The pain in the effused joint may vary from none at all to one almost as severe as that of acute articular rheumatism. The attack may come on suddenly. There may be a large effusion of liquid around the knee-joint, the skin over the joint may be red, and still there may be no pain whatever, either spontaneous or on handling and pressing.

The inflammation may end in resolution, in ankylosis or in abscess, and, unfortunately, there is a tendency to recurrence. There are some rare cases in which not only the synovial membranes of the joint but of the periarticular tissues participate, the joint becoming a phlegmonous abscess which requires prompt surgical treatment. Such instances, however, are rare, and the general practitioner will not have many chances to see them.

Treatment of Gonorrheal Arthritis

Frankness demands that we state at the outset that the treatment of gonorrheal arthritis can not yet be termed a brilliant success. We cure many victims, we relieve many more, but many cases seem to resist all efforts; and we are unable to predict when patients will be benefited or when they will remain uninfluenced by treatment. Sometimes the apparently mildest cases laugh at all our efforts, while severe cases with joint involvement, where there even is an apprehension that operative measures may become necessary, get along very smoothly.

It is perfectly legitimate to start every sufferer from gonorrheal arthritis on salicylic preparations, both internally and externally. We have a right to do so, for two reasons. First of all, the diagnosis between gonorrheal arthritis and rheumatism is not so absolute

that the possibility of error always can be excluded. A man having gonorrhea and attacked by pain and inflammation in the joints need not necessarily, as stated before, have gonorrheal arthritis. A man who has gonorrhea can contract ordinary rheumatism the same as any other man. Then there may be such a thing as mixed rheumatism, articular inflammation due to the gonorrheal germ and its toxins or to other germs. And, second, even in pure cases of gonorrheal arthritis the salicylic preparations are of some benefit, although, of course, the benefit is slight as compared with the benefit wrought in true rheumatism. I, therefore, in every case of gonorrheal rheumatism, start with large doses of sodium salicylate (15 to 60 grains), salol (5 to 10 grains), or aspirin (8 to 15 grains).

Externally, I have the painful parts rubbed in with an ointment consisting of methyl salicylate, lard, and woolfat, as follows:

Methyl salicylatis.....	drs. 2 (Gm. 2)
Adipis.....	drs. 4 (Gm. 16)
Adipis lanæ.....	drs. 4 (Gm. 16)

This is well rubbed in, covered with non-absorbent cotton and oiled silk or rubber tissue. The whole is held in place by a well-fitting gauze or rubber bandage.

This treatment produces a beneficial effect, for three reasons: first, on account of the analgesic action of the methyl salicylate; second, on account of the partial immobilization of the joint; third, on account of the warmth and the partial passive hyperemia induced by the rubber tissue and bandage.

Instead of the ointment, I often have the joints and painful parts painted with the following mixture:

Acidi salicylici.....	dr. 1
Mentholi.....	grs. 15
Guaiaacoli.....	grs. 30
Alcoholis.....	oz. 1

The joint is painted, then protected with non absorbent cotton, oiled silk or rubber tissue, the same as after the use of the ointment.

Sometimes inunction with unguentum Credé seems to be distinctly beneficial.

If the salicylic preparations seem to exert no effect, we may proceed to saturate the patient with calcium sulphide (calx sulphurata, sulphurated lime) and arsenic iodide. The sulphurated lime may be given in doses of 1 to 2 grains three to four times a day; the arsenic iodide, in doses of 1-100 to 1-60 grain three to four times a day. Be sure to get a good quality of calcium sulphide (calx sul-

phurata), because much of it on the market is practically nothing but calcium sulphate, which is inert.

Bier's hyperemia is a well-recognized procedure in the treatment of gonorrheal arthritis, and in some instances gives very excellent and rapid results. In other cases, however, it fails completely.

Gonorrheal arthritis is about the one complication of gonorrhea in which we are justified in using gonorrheal vaccines. Not that the results are so brilliant, but they are better than in gonorrheal urethritis and in its other complications, and, second, because the disease often is resistant to other treatment. In such cases we are justified in doing something.

Fifty million gonococci should be injected as an initial dose (in women and young individuals, we may commence with 25,000,000), gradually increasing the dose to 500,000,000. The treatment is not to be kept up indefinitely or for a period of several months, as I have seen done in a number of instances. A physician with common sense will very quickly see whether the treatment is bene-

ficial, remains without effect or acts injuriously. Occasionally the mixed gonococcus vaccine seems to act better than the gonococcus vaccine alone.

And last, but not least, the gonococcal foci must be treated vigorously. By vigorously, I do not mean roughly or strenuously, but I mean gently and persistently. There is no use hoping to cure a patient of his gonorrheal arthritis if there is an active or even a mild gonorrheal process in the urethra, or if there are gonococci in the prostate gland or in the seminal vesicles. The urethra must be irrigated, the prostate gland and the vesicles must be massaged, and everything else possible must be done in order to cure the local lesions and to eliminate the gonococci from the patient's system.

Some surgeons advocate drainage of the seminal vesicles or else their removal as a cure for gonorrheal arthritis. I have my opinion about vesiculotomy and vesiculectomy, but as these are not operations that will be undertaken by the general practitioner, for whom this is written, it is not necessary to discuss them here.

An Old Doctor's Life Story

An Autobiography

By ROBERT GRAY, M. D., Pichualco, Mexico

EDITORIAL NOTE.—This article is the fourth installment of Doctor Gray's autobiography. Every physician should read this intimate record of the unfolding of an unusual life. Doctor Gray was born in the Old South, was educated in France under the old regime, fought through our Civil War on the Confederate side, and soon after its close plunged into the very depths of tropical Mexico, where he has spent the greater portion of his romantic and adventurous life. Now, at the age of eighty-five, he has given his story to the world through the pages of "Clinical Medicine."

IV. THE RETRIBUTION OF REPENTANCE.

WHOEVER has experienced the rapturous ecstasy of seeing the chimney-tops of the old homestead begin to loom up to view, as an intervening hill is ascended, after an absence of a number of years, and knowing there is no vacant chair at the fireside and table, may appreciatively realize my sensation as I climbed such a hilly slope. But the curtain must not rise from the scene in the house, where I entered unannounced.

But my sweetheart, nobly devoted Carrie! My hand fain would tremblingly refuse its office rather than—but let this pass! Ye heavenly ministers! dry her angelic eye, should she weep for me tonight!

That bright morning-star of my early hopes and later despair had dawned and shone in all the cheering brilliancy of coy loveliness that

so illustriously adorned the fair young queens of the South in ante-bellum festivity. She no longer was the peevish girl of the piano kissing-episode, but a woman of pensive dignity whom any man might have been proud to number among his most precious friends; yet, as the prospective companion of a whole life—alas! such a life as this life of destiny of mine! Fortunate woman, to have early escaped the dark involvement.

I was uncomfortable in her presence. No vagrant thought of kissing her stealthily flitted in the perturbed chambers of my unquiet brain. The phantom shadow of the parlor scene in the house of my old friend in New Orleans seemed to thrust a menacing protest between us, admonishing me that I was unworthy of such a prize. And I felt the forcefulness of my unworthiness softly stealing

upon me, like vultures perched around a prospective victim while yet alive, the horrid prey-birds being endowed with faculties of prognostication no physician ever possessed. Had my crime been one of vulgar debauchery, its shadow never would have arisen between Carrie and me with the persistency of Banquo's ghost.

My sprightly cheerfulness had vanished. The new plantation that had fallen to my lot to open and establish was a haunting nightmare to me; and I masked my more poignant wretchedness under the guise of the uninviting task I was on the eve of assuming, and hurried forward the arrangements with energetic insistency. I resolved not to marry while that age of social exile was passing, four years being the shortest sober calculation required to complete the huge improvements.

I turned a deaf ear to the importunities of my sisters to take them to the ball in the house of my uncle—a pleasure they were forced to forego while I was abroad. I was reluctant to meet the gay young people who thronged the big ball-room; for I never expected to live among them again. I told Carrie that I was planning to live on the new plantation; and that, if she wished to escape being buried alive in that inhospitable refuge, she might retire from her compromise to link her destiny with mine. Her retort was that where I could reconcile myself to live would be a Paradise good enough for her, even from the inception of my enterprise.

My kinsmen had arranged to borrow a great block of money to buy slaves to do the terrible work that was dependent; but I insisted that the interest on borrowed money would hire slaves, many of whom were doomed to die from the fevers they could not escape. The course of hiring was adopted.

Taking Charge of the Southern Plantation

Just twenty days after my arrival home I was two hundred miles away, under a tent on a little hillock, with marshes and swamps heavily timbered spreading around, far and near, ten miles from any human habitation, surrounded by a big battalion of poor hired negroes, housed the same, under tents.

I would pass over further reference to that colossal undertaking, were it not well that the public should not forget the crude pioneer work done in the great deltas of the South, ere there were stump-pullers, dynamite, ditching-machines, and steam-plows, by the twitching sinews of the hapless children of Africa, in proprietary slavery, whose sweat was gone. While I made the lot of the poor

miserable people who labored under my direction more tolerable than they were accustomed to have, as to housing, clothing, and food—houses having been built as rapidly as possible—the terrible work could not be modified. The forests had to be cleared away, broad, deep drainage-ditches cut, and levees built—herculean tasks. It was not the quantity of the work—the men not being overtasked—but its fearful nature among the bogs, in mud and water, under a pitiless sun, where the malaria was so prevalent that, metaphorically, it seemed that one might slice it with a knife. And then the fevers, and the fevers, and the dysentery, and the mosquitoes—inevitable consequences.

My Parisian knowledge and French medicines were not equal to the stern and pressing exigencies of the dilemma, though superior to anything else then employed in the medication of slaves establishing new plantations. I was forced to build and maintain a hospital; had to cope with three decimating epidemics in as many years; in consequence of which comparatively little progress was made; so that 1858 found me with no plantation made, although money and life had been sacrificed in the attempt sufficient to have completed the tasks had the country not been created for alligators, reptiles, and mosquitoes. I then put most of the remaining work out under contract, not trying to lower any bid; yet every contractor lost money.

In 1860, I began my own house, seeing my way clear to turn the finished plantation over to the company and get myself married during the Christmas holidays.

The Work of the Slaves

No medical man of this progressive age can form any adequate estimate of the character of that class of service; and I am probably the only one alive tonight who passed such trying ordeals in ante-bellum days; and there were hundreds of them then, possibly nearly all salaried men; yet, they could not escape the inevitable professional mortification of seeing the poor slaves die; they were impotent to save, no matter what their qualifications may have been. And I know tonight that there were no medical competents in that day and age; as I could sit here in my office and save ninety percent of those I saw go to the slave burying-ground over there; and have been doing the equivalent for years among these Mexican peons. I was not then vanquished by impractical ignorance, but by worthless trash and slops of medicine—yes, then the best-known to the profession anywhere.

While I passed the crucible test of those long and trying years, immune from any of the deadly diseases I vainly struggled to combat, Nemesis must have felt a satiated relenting, at times, when the epidemics were raging, and I slept only snatches in a rocking-chair in the hospital, with none but slaves to assist me. Engineers threw up their jobs and left in disgust, so that half of the time there was not one on the place.

But the drainage was complete in 1859, and other sanitary betterments were installed, in a degree that normal plantation health prevailed among the slaves during the sickly season of that year—preparations being perfected to stock the place with proprietary slaves at the beginning of 1861. From my childhood, smarting under the dominant despotism of the church, I had felt some vague repugnance to slavery, especially the flogging feature. I sternly prohibited this on my works, even among the slaves of contractors; and I am sure I had very much less insubordination and far better service than the lash would have afforded. And I am yet uncompromisingly opposed to corporal punishment, under any state of circumstances, whether in the home circle, the country schoolhouse or the so-called houses of correction, where juvenile waywardness attains graduation in crime. But I had been born and nurtured in the hotbed of slavery; and was southern, right or wrong, to the marrow of my bones; while the object in human shape dearest to my fond heart was old aunt Jemima, my "Black Mammy!"

The War-Cloud Breaks

The chilly fogs of early November mornings began to hover along the margins of the big ditches. The roof was on my house. I arose early and opened my mail, that came just before daybreak, one morning. There was no great bulk of mail; yet, that little bathed me in a breath of metaphorical polar wind, that, for the nonce, seemed to congeal me where I sat: it was the harbinger of the blackest, most portentous cloud of war that ever darkled over cultured intellect and refined civilization.

I suspended everything in the act, not permitting another stroke of work, dismissing carpenters, and starting hired slaves home with their overseers, without awaiting the pleasure of my kinsmen, well realizing what we all had to face, the ultimatum, having passed all bounds of truce.

Two hours later I was on the way to the railroad-station, to take a homeward-bound train; and never more saw that haunted

purgatory, wherein I had passed six fearfully expiating years.

There were excited people in the train and a hubbub at all the stations along the way, where the neighboring people were gathered, and war-discourses in vogue. I had little to say to anyone. I felt the chill of the death-knell to all my plans and hopes of life. It was vain and idle to expect concessions from the abolition-sentiment, whose consuming fire was enkindled in the northern mind; and it were madness to dream of any yielding on our part, short of becoming helplessly vanquished.

Coolheaded, thoughtful men among us—those who were dead or in the last ditch at the final climax—did not delude themselves with the shadowy phantasmagory of what was termed "fire-eating orators," that northern fanaticism would not fight it out to the death. They reasoned that there was no practical compromise short of emancipating the slaves and passing under abolition dominating rule, that was sure to enfranchise the slaves; and that the irrepressible conflict had to come, soon or late; and that it were better to have done with it at once, while there were fewer people to be slaughtered than there would be a score of years hence.

Such was the reasoning of men who began to prepare for war as reluctantly as the criminal dresses to go to the gallows; yet they were the most dangerous antagonists with whom the North would have to cope, dauntlessly resolved to sell their property and lives at a horrid price in northern blood and tears.

How strange it seems to me tonight, familiar as I am with all of the heart-rending agonies of that dreadful age of mourning, that men could deliberate in cold blood, with tranquil nerves, on the perpetration of that ghastly fratricide. I participated in such deliberations, with undemonstrative acquiescence, with the sentiments of a polished bosom suppressed, my personal destiny being indifferently flung into the seething vortex of my fair native land. And tonight I regard all that dreadful scourge as the legitimate fruit of the curse of slavery having been barnacled on to the constitution of American independence. Slavery was ever blessed by the churches and, if not propagated, then tolerated, by the governments of earth, in all time. And there is yet a curse on the slavery masqueraded in all nations under the gaudy insignia of popular liberty, whose people are the slaves of gold or other untoward circumstances of enthrallment.

(To be continued)

The Keystone of Success—Collections

By A. D. BRUSH, Chicago, Illinois

WHEN your patient is stretched out on the bed before you, "all in but his shoestrings," how much are your services worth to him, *then*? He would willingly pay tribute to his last cent before you even felt his pulse. But—when you've buckled in and coaxed him back into the game of life, lo! what a change! Your modest little statement of account goes by on the first of the month unheeded. Like Hamlet, "you live on air, promise crammed," and soon your debtor-client crosses to the other side of the street when he sees you coming. And does he tell people about how you "stood by" and pulled him through? Not he! The man who owes you money is your hardest knocker.

"But," you say, "I can not go after him too strong, or I shall lose his future patronage."

Right there you're wrong! The man with whom you are firm from the start is the man who will respect you to the end.

"Customers who keep their accounts paid up feel a certain satisfaction in dealing at that store. They are privileged persons, always welcome. But those who lag behind, feel an irresistible temptation to cross over to the other side of the street. So, it is not always so much a question of getting the money as of keeping the customer's conscience clear that prompts a credit-man to keep the buyers up to date with their bills." Sound, business common sense! Then, why is it not common sense for the medical man?

Do you want to enhance your position of dignity in your community? Do you want to discount your drug bills instead of being dunned for them? Do you want to pay off that mortgage or buy that "Cadillac Eight"? Do you want the local merchants to recommend you as "A-1"?

Then, do as other merchants do. *Make your debtors pay you first.* The very nature of your services is such that you have a stronger hold on your patients—a greater obligation, if you but make them see it—than any commercial account could possibly have.

Make your debtors pay you first! How? In the first place, reduce credit risks to a minimum. Next, adopt an intelligent, automatic, compelling, surer-than-death-or-taxes collection-system.

There are two rules for minimizing credit risks, to wit: Know thyself; and, know thy man.

You may fool yourself into the belief that it is your duty to furnish medical attention to everyone who requests it, without making any investigation, trusting to the good Lord to pay you hereafter, if you're not paid here. But—you entered the profession because you expected to make in it a living (maybe a little more) and a name for yourself. Your ability to do both is directly dependent upon your income. However, your income depends upon your business ability, and, medicine is your business; hence, you must avoid doing anything that involves a loss, that being "bad business."

You must adopt business rules, and live up to them. Don't get the reputation of being a "charity doctor." Even poor people *can* pay. And they can pay you better "per visit" than they can "in bulk" after continued sickness has exhausted the family income. Adopt the practice of saying; "It will be less expensive and easier for you to pay me at each visit, and I have a receipt right to hand." Always carry statements, note-blanks, and receipt-forms with you. Always leave your statement to rich and poor alike—at the completion of your services, arranging, if possible, right then for cash settlement, cash and note or all note. A note always is better than an open account.

Toward known deadbeats or habitual slow payers adopt a stricter attitude. "Cash first" should be your slogan in their case. Maybe you'll offend some of these, but you can afford to risk this, rather than lose money by them. And remember—their hides are thick. It's not so easy to offend these gentry as you think.

Know thyself! Lookout for "number-one!" Practicing medicine is business, and your diploma is an investment that must yield returns.

Secondly, know thy man! To the new doctor in a community, every one is a question-mark; to the established doctor, each newcomer is a question-mark. How can you find out as to the responsibility of all these people? The answer is simple: Be a merchant. The grocer, the butcher, the baker, all these soon find out; probably long before they're approached for credit accommodation. Nearly every town has its "Merchants' Protective Association," which exchanges credit information, gets reports on new ar-

rivals, lists undesirables, traces the "skips," and much more. As a merchant, you should be an active member of your local association. Then, if Jones has beaten the butcher out of his bill, you'll know of it and can treat Jones accordingly when he comes to you.

If there is no local merchants' association, make personal inquiries. Try the bank, his nearest grocer, and the druggist. Better yet (and here's a field for practical individual work), get your county medical society to make its own list, the information being furnished by the doctors of the county, for mutual protection. Secure all the information you can from common acquaintances, personal interviews, past record, and so on.

Credit information and its sources might be charted somewhat as follows:

Agency and merchants' reports indicate: Rating; business record; standing among your competitors; public position; ability.
 Personal interviews develop: Character; personality; intentions; habits; hobbies.
 Common acquaintances know: Ability; habits; standing; reputation.

Know thy man and handle him accordingly. Set the pace. Make him do business by *YOUR* rules; not by his rules. Get a line on every prospective patient, then you'll be prepared.

With the best of preparation, however, collections will lag unless your methods keep your patients whipped up. The public has heard the expression, "The doctor is no business man," so many times and has seen so many practical demonstrations of the fact that it is almost second nature with people to impose upon you. To remedy this, you must strike at the root of the evil—*be a business-man*.

System and Attention Are Prerequisites

It is not necessary to invest in a great deal of special office machinery to make your collection-system absolutely automatic. Many shortcuts are provided for the collection-manager whose accounts are numbered by the thousands, but for which the ordinary doctor will find little use.

If you carry ledger or card accounts, devising a single leaf or card to a client; a correspondence file for holding letters and copies of your own, and an ordinary dated memorandum file, that will be ample for your collection followup. All that is necessary is to remember that no collection-system, however automatically arranged, will run itself.

You must set aside certain definite intervals for giving your attention to all accounts.

Whether this will be monthly, weekly, or bi-weekly will depend upon local conditions as well as on the information you possess as to each individual's financial status. Working-men who are paid weekly should be followed up weekly. Never should the interval be more than one month. In farming districts, where it is customary to let the doctor wait until crops are harvested and sold, notes should be insisted upon. These then can be discounted at the bank or otherwise negotiated. Every account should be regularly followed up until some definite settlement has been secured.

First let us determine, by means of a chart, exactly what is embraced in a collection-system—the various processes and the bases of appeal possible to each. By keeping this outline in mind and ascertaining the line of appeal to which each individual is most likely to respond, there is a chance to eliminate many false moves in the usual hit or miss style of procedure; thus saving collection expense by getting maximum results from the first steps.

A Routine Collection-Scheme. Dunning

1. Statements: Should be advised to get results on first presentation. Should be definite as to terms of payment. May be accompanied by novel reminders and should be accompanied always by return-envelopes.
2. Form letters; Personal calls; Phone calls: Keep the debtor regularly reminded. Must always be courteous though increasingly insistent. Appeals to personal traits revealed by past experience, credit reports, and so on. Such as, Reciprocity, Conscience, Self-esteem, Good fellowship, Friendship, Economy, Self-interest and Caution.
3. Work with attorney: Notice of intention to take action. Attorney's notices. Final appeal before suit. Suit for (a) judgment, (b) Attachment, (c) Garnishment. Supplementary proceedings. Notifying employer. Sending collector to wait.
4. Work with home associations: Threat of lost credit-standing through publication of debtor's name in list of delinquents. Legal work by Association's lawyer. Advertising account for sale.
5. Work with out of town agencies: Publication of debtor's name in a national rating-guide. Unusual procedures possible by working at a distance.
6. Novel, special, and persistent methods for striking at debtors, whose accounts are legally uncollectible, from new and effective angles.

The routine of collecting accounts is as follows:

We will assume that you are sending your first statement on the first of the calendar month following the date of service. Write

the statement with the open ledger or card before you. Then on the bottom line, over near the left-hand margin, write—if it is the 1st of May—the figures 5-1-15—1. (Signifying: May 1, 1915, No. 1.) This will designate that you sent the first notice on May 1. To make your first statement most effective, it should show definitely that it is payable upon presentation. The sentence "Accounts for services rendered are due at once on presentation of statement," printed on your statement head, will suffice. Or, to make it still more effective, the following, printed in small type across the face of the statement or else in larger type on back of it, might be used. (This may be set off by ink of a different color.)

A doctor's services, from their very nature, cannot be placed in the same class as ordinary mercantile accounts. In his attending the sick, every act constitutes an immediate expenditure of time, material, and knowledge, the two latter acquired and paid for long before being ultimately used. Therefore, ordinary business practices cannot govern a doctor's charges, and, so, accounts are *due when rendered* and prompt settlement is respectfully requested.

All your statements might contain this as an adopted standard. The idea is, to make the first punch count.

Along with your statement, you should send return-envelope and anything else that will assist in making it easy to remit. Make prompt payment appear the line of least resistance to your client.

The following form is copied from a recent issue of *The Illinois Medical Journal*. The slip is perforated along the dotted line, this is sent to the patient, the latter returning the small right-end section, together with his remittance, while retaining the other part for his record; in that way making it unnecessary for the physician to send a receipt for such mail payments.

At the expiration of the fixed interval, go over your ledgers, make out your regular statements and send them out. New accounts during the previous month start the new routine for those patients, while those who already have received the first statement, but have not paid, will get the second notice. This time, assuming that you have adopted a 2-week interval, repeat the date figures used in the previous bill, followed by a dash, and then write the new date 5-15-15-2; the 2 showing it is the second bill. This second statement (No. 2) should bear a legend somewhat as follows:

Undoubtedly you have overlooked this account. I shall greatly appreciate your prompt remittance.

If written with pen and ink, it will prove much more effective. If you desire, you can have made such a rubber stamp or your printer will supply printed gummed strips, which may be pasted across the face of the statement. But the main idea is, be sure to send it.

At the next period write the figures 6-1-15—3, after the former two dates, as before, with a dash between; this being your third notice. The tenor of this should be more insistent, although it is best still to assume unintentional oversight as the reason for nonpayment. You may write a note something like this:

Continued oversight is sometimes mistaken for intentional neglect, but I realize that my *two previous statements* may have been mislaid. I am confident, however, that you will appreciate the urgency of this request.

Step four should be a personal or a telephone call, or else a personal letter, timed, if you have that information, to arrive on your client's "pay-day." The date and the figure 4 should follow your former date-records on the account page. A good first letter would be like this:

Examination Special Home Visit Office Visit Night Visit Consultation Obstetrical Surgical Operation Surgical Dressing Microscopical Examination Chemical Examination Blood Examination Urine Examination		<p align="center">TO JOHN C. SMITH, M. D., DR. MARSHALL FIELD ANNEX 22 EAST WASHINGTON ST.</p> <p align="center"><small>RETAIN THIS PORTION OF BILL FOR YOUR RECORDS. NO RECEIPT WILL BE RETURNED ON MAIL REMITTANCES UNLESS REQUESTED AT TIME OF PAYMENT</small></p> <table border="1"> <tr> <td colspan="2">FOR PATIENT'S RECORD</td> </tr> <tr> <td>PAID BY</td> <td>CHICAGO, _____, 191__</td> </tr> <tr> <td>CHECK NO.</td> <td></td> </tr> <tr> <td>P. O. ORDER</td> <td></td> </tr> <tr> <td>CASH ON HAND</td> <td></td> </tr> <tr> <td>BANK</td> <td></td> </tr> <tr> <td>DATE</td> <td></td> </tr> </table> <p align="center">FOR PROFESSIONAL SERVICES</p> <p>FROM _____, 19__ TO _____, 19__ \$ _____</p>	FOR PATIENT'S RECORD		PAID BY	CHICAGO, _____, 191__	CHECK NO.		P. O. ORDER		CASH ON HAND		BANK		DATE	
FOR PATIENT'S RECORD																
PAID BY	CHICAGO, _____, 191__															
CHECK NO.																
P. O. ORDER																
CASH ON HAND																
BANK																
DATE																

TO JOHN C. SMITH, M. D., DR.
 MARSHALL FIELD ANNEX
 22 EAST WASHINGTON ST.

DETACH THIS STUB AND ENCLOSE WITH
 MAIL REMITTANCE

MR. _____

\$ _____

I shall greatly appreciate it if you will step in and see early this week with reference to your unpaid account of \$——. This really deserves your immediate attention. If inconvenient to call, can you not send check or advise me by telephone definitely as to when I may expect settlement, so that I may arrange my accounts accordingly?

How are Mrs. Smith and those two fine boys of yours; well, I hope? I am always glad to see you, and am ever at your service whenever you may need help.

Yours very sincerely,

Letter or call number 2 is your fifth step, and the figure 5 should follow all your preceding notations, along with the date. Number your first letter "4" and your second letter "5," to correspond with the entry, and keep either a "master copy," for reference, or a carbon copy of the letter in your client's letter-file. Your second letter might read:

I am wondering why I have not heard from you in response to my letter of the —th. Probably you have been too busy. If you cannot call, I shall confidently expect a letter from you by return mail, as I owe some drug-bills which simply must be paid this week, and am depending upon your remittance to help pay them. Please, do not disappoint me.

Yours sincerely,

Your sixth step, or letter number 3 (don't forget your notation No. 6 in the ledger), should admit of no chance of further evasion. Be courteous and friendly, but at the same time definitely insistent. A form-letter, however, will suffice. By keeping your master copies always within reach and numbering them to correspond with your ledger notations, no carbons will be necessary. Write, this time, in this strain:

Knowing your customary promptness, I felt that there must be some definite explanation for your delay in taking care of the little account you owe me.

I have too much confidence in you to allow this to cause me any uneasiness, but I should like to know exactly what the trouble is.

I am, and always have been, ready to respond promptly to your call and to serve you to the best of my ability. Now, if you will be just as prompt to reciprocate, all will be well and your present negligence will not be held against you.

If you cannot pay the entire amount now, please send me as much as you can spare today, and let me know how much you will send every week till all is paid.

I shall confidently expect a definite adjustment of this matter before——.

Yours sincerely,

Should he make an indefinite promise, write him again, until you pin him down to a definite date. Say:

I thank you for your kind and prompt response, but, as you have given me no definite promise, I wish you would let me know exactly when I may expect to hear from you and how much you will be ready then to pay on account. You will readily understand that I need this definite information for

the correct handling of my expense accounts. Please, let me know by return mail, and oblige.

Yours sincerely,

It is here that your memorandum, or "tickler" file does its duty. When you receive a definite promise, make a note under the proper date, like this: "J. Jones promised me \$5.00 today."

A good tickler file may be made of an ordinary card index, each card bearing consecutive numbers for the days of the month. Memoranda, such as: "Write A. Smith today in re account," or, "Call F. Johnson at office today," or, "Jones gets paid today," are written on a slip of paper or card cut in size to correspond with the indexes. This tickler is filed behind its respective day. Each day the memoranda behind their respective index are removed and handled. Such a memo system can be used and extended indefinitely.

When your debtor does not keep his promise, write on the day after the one he agreed to pay:

Will you please advise me at once, whether or not you have sent the \$5.00 you promised you would send me yesterday. I have not yet received it, and if the remittance has been lost I wish to start investigation at once, while there still is time and opportunity to trace it. If you have overlooked this matter, I shall appreciate your immediate attention.

If no answer comes, you can then revert to the collection procedure fixed upon, having the matter come up for attention every week through your "tickler" file.

About this time you will be tempted to place the account with your collector, without further delay. Bear in mind, though, that it always is easier to collect an account before your attorney has had it in charge than after he returns it as uncollectable.

Go back over your collection-chart. Recall everything you know about the debtor. His strongest characteristic, be it conscience, friendship, caution, or other trait, will be his weakest line of defense. Direct your artillery against his fear of notoriety, self-interest, sense of honor, and so on. Then, if you know that he is hard up, suggest an easy-payment plan that will be mutually convenient—a dollar a week appeals to many. There always is *ONE* line of appeal which your debtor simply can not resist, and, with your intimate personal knowledge of your clients, you have a far better opportunity of finding the correct basis than the credit-man of the ordinary business concern.

If you decide to give the account to the attorney, first notify your debtor, and do it courteously. Let "continued courtesy under every provocation" be your watchword.

You can catch more flies with molasses than with vinegar. Tinge your letter with "regret" that he has forced you to take such action. Show him how it will be more honorable and how, at the same time, he can save annoyance and expense by a direct settlement. Then set a definite date upon which you will act. Then, keep your promise! Give the account to your collector on the day set! By acting promptly, you enhance the effect of your attorney's first notice. Write your letter something like this:

Serving the sick requires the greater portion of my time, so that beyond a certain point I cannot give my accounts my personal attention. Automatically all accounts which have reached a certain stage must go to my attorney for his attention.

I sincerely regret that you have allowed your account to reach this stage. I hoped that you would respond ere now to my repeated requests. A direct settlement will be of great mutual advantage, as my confidence in you will in this way be justified, while you will save the annoyance and expense of my attorney's procedure.

I shall be in my office every day from 10 a. m. to 2 p. m., in case you may wish to see me personally about this. Otherwise, I must take action on the 12th inst.

Yours sincerely,

Your attorney will tell you, occasionally, that you will have to sue a certain debtor. Nearly every man will avoid suit if the chance is given him to pay in small installments. Consequently write him like this:

My attorney tells me that I shall have to sue you if I expect to secure my account against you. I do not believe this.

First—I think you have too much good, common sense to allow anyone to drag you through the annoyance and notoriety of court procedure.

Second—Your own interest will argue against allowing court costs, attorney's fees, and so on, being added to this little bill, as they most surely will be if you permit this to come to trial. You could not afford to have your wages garnisheed.

Third—You are too honorable, in my estimation, to compel me to gain by force of law what you acknowledge as a just debt that should have been paid willingly long ago.

So, while I have told my attorney to go ahead if he doesn't hear from you by the 15th inst., I am sure that you will see the great advantage of an immediate, direct settlement.

I am willing to accept small regular part payments if this will be of any convenience to you. I hope you will not force me to take harsher action.

Yours very sincerely,

International Collection Agencies. Threats

It is well to ally yourself with some international collecting and reporting agency. Being at a distance, they can appeal to your debtor from different angles, showing him their almost unlimited resources of cooperation with other creditors, publishing his name in an international list of delinquents,

sharp work through local representatives, justices of the peace, and so on. The National Rating League of Chicago cooperates with business men and publishes a "Red Guide," which is very much in favor. Such agencies are much more experienced and better equipped to handle this kind of work than you are, but, if you should try the effect of personal coercion, do not overstep the limits prescribed by law. Watch these points: Libel; blackmail; postal regulations; statutes of limitations.

Under no circumstances, ever write "duns" or threats to sue on a postal card, for it is against the law. Be wary of making any derogatory statement, direct or indirect, in your letters. Avoid abusive or threatening language. Blackmail is defined as "extortion by intimidation, especially extortion of money by threats or accusation." Libel is, "any statement published without cause or excuse, either in print or writing, tending to expose another to public hatred, contempt or ridicule." The fact that your statements may be true does not alter the case.

Statutes of limitation prescribe the legal limits within which you may sue a debtor or *threaten him with suit*. The time varies in different states, and the limitations on open accounts, notes, and judgments also differ. Your attorney will set you right on these points. No suit for debt lies after the legal period of limitation is exhausted.

While the statutes of limitation limit the time within which you may sue or threaten suit, they do not affect your right to request payment of any account, no matter how old. So, never let an account die, even if it is outlawed. Keep it ever green in your debtor's memory. Every time you send out a general letter, see to it that your oldest delinquents receive it as well as do the "fresh crop bad-pays." If your letters always are courteous, you stand a much better chance of eventually shaming your debtor into paying.

New ideas as to procedure continually will present themselves. The only way to find out their actual value is to try them out. The prevalent notion that accounts depreciate with age is wrong. The longer an account runs, the more of an investment does it represent. Interest and collection expense increases its value to you each year. For this reason you never should compromise for less than the face value of the account. Quite frequently a statement showing the accumulated interest added is the most effective way of making plain to the debtor that it is best for him to pay without further delay.

Dental Malocclusion

Receding Chin and Prognathism

By RALPH ST. JOHN PERRY, M. D., Minneapolis, Minnesota

EDITORIAL NOTE.—This article is another installment in Doctor Perry's series on "Cosmetic Surgery." The subject discussed is one which has rarely been brought to the attention of the medical profession. It nevertheless is of such exceeding importance that we feel sure every reader of this journal will read it eagerly and ask for "more."

DENTAL MALOCCLUSION

MANY who have been interested in phrenology and face reading have heaved large, deep sighs because their receding chins advertised them as individuals of weak will-power or because protruding jaws gave them a pugilist's aspect. As a matter of fact, chins are very likely to mislead; for, a careful study of mandibular conformation discloses that the position and the shape of the chin are dependent upon the occlusion, or putting together, of the teeth, excepting, of course, in a few cases, where a traumatism or some disease has entered as a factor.

The etiology of defective occlusion—or malocclusion, as we shall hereafter call it—has been, as it is now, well studied, and such troubles no longer can be attributed to heredity or to some obscure eccentricity of development. The primary causes have been recognized, and we now know that aggravated cases of malocclusion are the consequence of the neglect of, and failure to remedy, these initial wrongs. Cases once looked upon as owing to heredity we now consider as resulting from a similarity of environment, a sameness of diet, and a duplication of parental habits.

Presumably every infant turned out from nature's workshop comes forth a perfect product, finished and complete, as babies should be at birth, and containing within its body all the embryonic tissues and rudimentary organs essential to its further growth and development. Sometimes nature slips a cog in its mechanism, and an imperfect or defective baby results; still, it can be said that as a rule nature's work is perfect. This being true, most of the deformities and disfigurements must be attributed to influences brought to bear upon the child after its advent into this world.

Forces Producing Normal Occlusion

In the study of malocclusion, we have found that certain forces influence and bring about normal occlusion, and these have been tabulated, as shown below, and here enumerated in the order of their appearance

during the period of development of the dental apparatus.

1. Normal cell metabolism.
2. Muscular pressure.
3. Force of inclined plane.
4. Normal approximation contact.
5. Harmony in size of the arches.
6. Atmospheric pressure.

Normal cell metabolism is the proper development of those cells which are involved in the eruption of the teeth and the development of the surrounding parts, and is the first force which influences the teeth to assume their correct positions in the dental arches.

Muscular pressure, the restraining and quieting force of the buccal, labial, and lingual muscles, tend to keep in correct alignment any teeth showing a tendency to deviate from the normal line of occlusion. Should a tooth tend to grow too far toward the tongue, the lingual muscular pressure acts to push it back into line; should the tendency be toward the cheek or lip, those muscles exert their corrective influence. This muscular pressure, though very gentle, is constantly exerted and eventually effects its purpose.

By the force of the inclined plane, is meant the tendency of the irregularities of the articulating, or occlusal, surfaces of the teeth (the cusps, grooves, sulci, and fossæ) to fit into each other. When the teeth are first erupted, they do not exactly fit into each other, but the function of mastication soon brings the surfaces into opposition, and the inclined planes cause the teeth gradually to occlude as they should. If, however, through some mischance, a tooth be diverted from the normal line of contact and its inclined planes fail to meet correctly those of its opposing tooth (or teeth), then the tendency of the force of the inclined plane is, not only to aggravate the malposition of that particular tooth, but to bring about malocclusion of other teeth.

Normal approximal contact is the term applied to the intercontact of the teeth in the same dental arch. The inclined plane is a force involving the two arches; this involves

only the relations of one tooth with the others in the same arch. It is reasonable to assert that every tooth must have enough room in which to stand, and that its cutting or grinding surface should be in proper position in the line of occlusion, or "bite." Should its space be encroached upon by adjacent teeth, we find an abnormal approximal contact, whence the tooth is forced to erupt out of line, become twisted in its canal or is projected forward or backward. Such a tooth can very easily influence others to go wrong later on.

Harmony in the size of the arches means that the teeth in the two arches are so arranged that when the jaws are brought together the line of contact is equal in both arches. Should there be a missing tooth or one so far out of line as not to come within the bite, or when a part of the proximal portion of a tooth is lost through decay or injury, it can readily be seen that there exists an inequality, or asymmetry, that will bring about a defective occlusion.

Normal atmospheric pressure is that pressure brought to bear upon the parts during normal respiration and swallowing, not alone in the nose, but in the mouth and in all the accessory sinuses. Atmospheric pressure is an important factor in the normal development of the nasal cavity and the superior maxilla, and, hence, directly affects the size and shape of the upper dental arch.

When these several forces of occlusion work in harmony, we have a normal occlusion, as shown in Figure 1. Should any one force or any two or more in combination be absent or perverted, there at once arises a condition which results in a malocclusion. From these half-dozen forces, there are possible some fifty-eight variations and defects.

Etiologic Factors of Malocclusion Classified

The etiological factors playing upon these forces have been classified as follows:

A. Constitutional:

1. Early loss of deciduous teeth: due to rickets, syphilis, scarlet-fever, measles, chicken-pox, and fevers accompanied by a high temperature.
2. Tardy eruption of permanent teeth: due to poor nourishment and deficient calcification, improper food, wrong kind of food, loss of mastication because of improperly prepared food, with the resultant nonuse of the teeth.
3. Loss of permanent teeth: due to disease or to drug action.

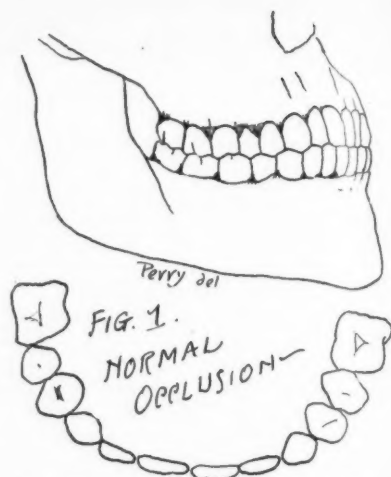


Fig. 1. Normal occlusion. Upper figure from skull. Lower figure shows normal alignment of teeth in the arches.

B. Local:

1. Early loss of deciduous teeth, due to decay and extraction.
2. Improper restoration of contour, size, and so on, of decayed deciduous teeth.
3. Early loss of deciduous teeth, due to injury.
4. Loss of mesiodistal diameter of teeth.
5. Early loss of permanent teeth, due to local disease.
6. Early loss of permanent first molar.
7. Mouth-breathing, due to adenoids.
8. Enlarged and inflamed tonsils.
9. Nasal obstructions; polypi, ethmoiditis, enlarged turbinates, catarrhal conditions, and so on.
10. Habits: lip biting, lip sucking, tongue protrusion, tongue pressure, thumb and finger sucking.
11. Tongue-tie and atrophy or hypertrophy of the tongue.
12. Sore teeth, causing faulty mastication.
13. Loss of a portion of the jaw-bone, either superior or inferior maxilla.
14. Temporomaxillary arthritis, either acute or chronic, and the sequelæ.
15. Cicatricial contractions.
16. Tumors about the maxillary or oral regions, the location of which interferes with normal occlusion.
17. Early loss of permanent teeth through traumatism.

Malocclusion may involve the entire dental apparatus, parts of it or only the individual teeth. In the latter cases, we have several varieties of displacement, which, if explained

here, will materially help in understanding what is to be said later.

The teeth are divided into right and left by the median line of the body—a well-known and long-established anatomical landmark; and in my work all relations of the teeth are spoken of with the median line of the dental arch as a "base line."

Technical Terms Defined

The following definitions may not come amiss:

Mesial: in the direction of the median line of the arch. A tooth which is too near the median line of the arch is said to be in mesial occlusion. (Figure 2.)

Distal: away from the median line of the arch. A tooth too far away from the center of the arch—toward the angle of the jaw—is in distal occlusion. (Figure 2.)

Labial: toward the lips. (Figure 2.)

Buccal: toward the cheek. (Figure 2.)

Lingual: toward the tongue. (Figure 2.)

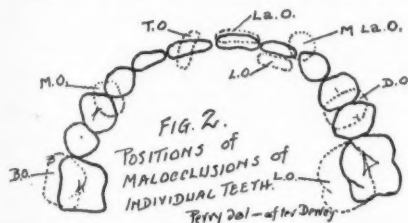


Fig. 2. Positions of malocclusion of the individual teeth. Solid lines show the normal alignment; dotted lines indicate abnormal positions. B. O.—buccal occlusion; M. O.—mesial occlusion; T. O.—torso occlusion; L. O.—labial occlusion; L. O.—lingual occlusion; M. L. O.—mesiolabial occlusion; D. O.—distal occlusion; L. O.—lingual occlusion.

Infraocclusion applies to a tooth that is too short, which has not erupted sufficiently and the surface of which does not reach the line of occlusion. (Figure 3.)

Supraocclusion signifies that the tooth is too long and its surface projects beyond the line of occlusion. (Figure 3.)

Torsiocclusion means that the tooth does not occupy the proper axis in line of occlusion—is twisted. (Figure 2.)

We may have combinations of these several positions, the tooth having from two to four malpositions united to form a malocclusion. A malocclusion of one tooth occurring in early childhood will so affect other teeth that eventually the entire jaw may become involved; and so common has this condition become that, when we now speak of malocclusion, the term generally is understood to apply to those troubles involving the entire dental paraphernalia.

With this understanding, as explained, I have undertaken a classification of the various types of malocclusion, one which embodies the features promulgated by several surgical and dental authorities on this subject, while, yet, disagreeing in some points with a few of them. My effort has been more to produce an analytical key from already known data, such as we have in zoology and botany, rather than to complicate matters by introducing new terms, names, classes, or types. With the hope that it may be of some help in diagnosing these troubles, this offering is made of the Analytical Key to Malocclusion here shown.

In this key, there are retained certain terms which have become established by usage and priority, although I believe the use of descriptive, generic, and specific names would be more appropriate. The argument, often advanced, that the laity would not understand such terms counts for nothing, as the key is for the use of students and practitioners in their work, and not for the laity. As it stands now, "in plain English," it is cryptographic, and the doctor has to go into detailed explanations to get a lay person to comprehend what is meant by, for example, a Class I Type 2 condition. By using in the key capital and italic letters and Roman and Arabic numerals, it is possible to designate any possible malocclusion by means of an abbreviated description, as, A I 2 or B I L M 2.

An Analytical Key to the Varieties of Malocclusion

Deformity involves both sides of the jaw:

A. **BILATERAL**

Deformity involves only one side of the jaw:

B. **UNILATERAL**

A. **BILATERAL**

Mandible in normal relation to superior

maxilla.....CLASS I

Mandible in distal relation to superior

maxilla.....CLASS II

Mandible in mesial relation to superior

maxilla.....CLASS III

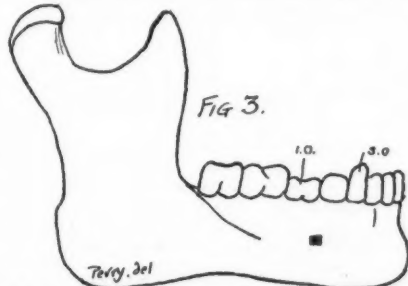


Fig. 3. Positions of malocclusion of the individual teeth. I. O.—inferior occlusion; S. O.—superior occlusion.

Mandible in crossed relation to superior maxilla (one side distal and the other mesial, with a cross bite at the incisorial region).....CLASS IV

CLASS I

Upper incisors in mesial occlusion to lowers; occasionally a few or all of the canines may be distal; upper molars and premolars may be in lingual occlusion with lower apposing teeth on one or both sides. The anterior teeth are "bunched".....Type 1

Upper incisors in mesial occlusion to lowers; molar and premolar relations normal; both upper and lower arches narrow. Patient presents history of mouth-breathing or lip habit.....Type 2

Upper incisors in distal occlusion to lowers and "bunched," with an undeveloped pre-maxillæ region.....Type 3

CLASS II

Upper incisors protruding; upper arch narrow; upper lip short; chin undersized; mandible undersized; muscular pressure abnormal; atmospheric pressure abnormal; mouth-breathing....Type 1

Upper incisors retruding and bunched; upper arch nearly normal in size; mandible normal in size; muscular pressure normal; atmospheric pressure normal; breathing normal.....Type 2

CLASS III

Upper and lower teeth present an even alignment; no torsio-occlusion; upper and lower arches correct in shape; muscular pressure normal; atmospheric pressure normal; breathing normal.....Type 1

Upper teeth in even alignment with little or no torsio-occlusion; lower incisors bunched, with lingual inclination and in lingual (distal) occlusion to uppers; mandible only slightly overdeveloped; muscular pressure normal; atmospheric pressure normal; breathing normal.....Type 2

Upper incisors bunched and in distal occlusion to lowers; lower teeth in good alignment; upper arch under-developed; premaxillæ undeveloped; mandible overdeveloped.....Type 3

CLASS IV

Right side of mandible in mesial and left side in distal relation to superior maxilla:

Subclass, *Dextro-Mesial*, DM

Right upper incisors mesial, left mesial.....Type 1

Right upper incisors mesial, left distal.....Type 2

Right upper incisors distal, left mesial.....Type 3

Right upper incisors distal, left distal.....Type 4

Right side of mandible in distal and left side in mesial relation to superior maxilla, Subclass, *Dextro-Distal*, DD

Right upper incisors mesial, left mesial.....Type 5

Right upper incisors mesial, left distal.....Type 6

Right upper incisors distal, left mesial.....Type 7

Right upper incisors distal, left distal.....Type 8

B. UNILATERAL

Right side of mandible in normal occlusion with superior maxilla.....CLASS I

Left side of mandible in normal occlusion with superior maxilla.....CLASS II

CLASS I

Left side of mandible mesial to superior maxilla.....Subclass LM

Left upper incisors mesial to lower.....Type 1

Left upper incisors distal to lower.....Type 2

Left side of mandible distal to superior maxilla.....Subclass LD

Left upper incisors mesial to lower.....Type 3

Left upper incisors distal to lower.....Type 4

CLASS II

Right side of mandible mesial to superior maxilla.....Subclass RM

Right upper incisors mesial to lower.....Type 5

Right upper incisors distal to lower.....Type 6

Right side of mandible distal to superior maxilla.....Subclass RD

Right upper incisors mesial to lower.....Type 7

Right upper incisors distal to lower.....Type 8

There is a bare possibility of, at first glance, confusing a malocclusion with simulating conditions. A very thick protruding lower lip, owing to hyperplasia, may give the chin a receding appearance when in fact it is normal. So, too, may an ensemble of thick lips and a large, bulbous-pointed nose. Labial ectropion or entropion, from any cause, will have a reflex cosmetic effect upon the chin. Tumefaction of the point of the chin (soft part) or a long growth in the median portion of the body of the mandible will give the appearance of prognathism.

Corrective Cosmetic Operations

Many persons come or are referred to me for correction of receding chin or protruding jaw; more for cosmetic reasons than otherwise. Public opinion, backed by years of tradition and phrenology and pedantry, still relegates the owner of the distal mandible to the weakly and inefficient class and persists in regarding the wearer of the mesial mandible as a brutal creature of low instincts, a criminal or near-criminal. Such relegations are not justified; and what is more natural than

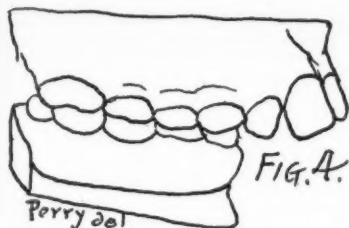


Fig. 4. Teeth project beyond line of occlusion

that those who are thus imposed upon should seek relief in a cosmetic operation?

Most of these people have become so habituated to their malocclusion that they tolerate whatever inconvenience or discomfort there may be in connection with mastication and speaking. The treatment of these cases depends upon the nature of the malocclusion and may vary from a simple connective appliance to the rather formidable operation of osteotomy upon both rami of the inferior maxilla, followed by wiring the two dental arches in as nearly a correct occlusion as possible. Before presenting cases which have been given typical treatment, I want to recite the story of two cases which present rather unusual features because of unexpected results.

Various Operations Illustrated

Case 1. William D. At the age of 16 years he presented a normal, healthy appearance, except for a slightly receding chin. A horse of erratic disposition kicked William

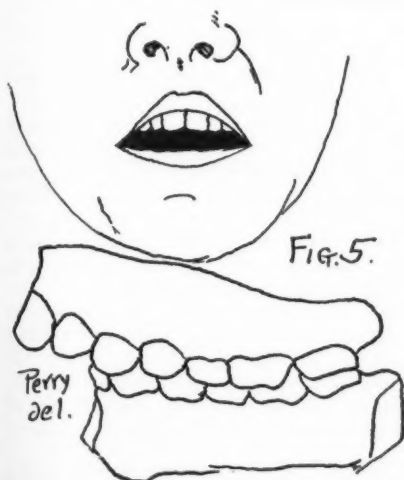


Fig. 5. Condition found in case No. 4

under the chin and caused a compound fracture of the lower jaw, one break on each side of the mandible, and the two about equidistant from the median line. The fracture was treated after the method then in vogue and in due course of time William was discharged as being completely repaired; but, oh joy, the surgeon, in setting the jaw, had advanced the chin, and now the boy no longer was a "weak-willed" Willie, but a husky, lively Bill. William, now at the age of forty-

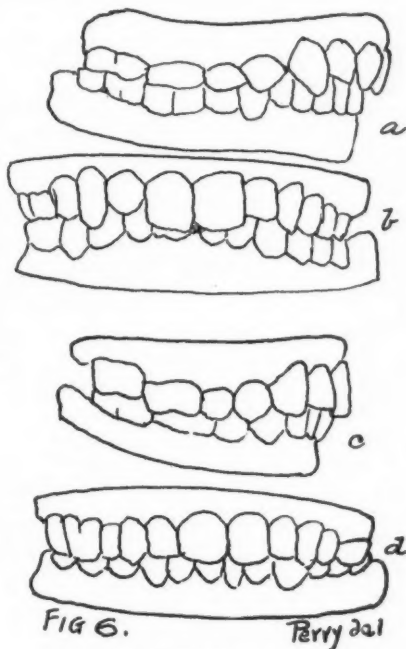


Fig. 6. Illustrating case No. 5.

plus, is an officer in the U. S. Army, and no one would suspect that years ago he was the unhappy owner of a receding chin.

This example of unintentional repair of a malocclusion furnished the precedent and inspiration for several cases in which an osteotomy was done for the purpose of repairing a condition too far advanced to be remedied by appliances.

Pulled Out "The Whole Jaw"

Case 2. Miss K., aged 12 years. Referred by Dr. A., a dentist, for curetment of a necrotic lower maxilla. It being desirable to extract a tooth in the necrosed area, Dr. A. applied the forceps, and not only extracted the tooth, but the entire ramus and posterior

third of the body of the mandible with it! After recovering from the shock of this unexpected occurrence, an examination was made of the necrosed parts and its cavity, and it was discovered that the bone apparently had "shelled" out of its periosteum. At that time (1885) our ideas about treating necrosis were somewhat hazy and, remembering Lewis Sayre's successful methods in orthopedic work, the cavity of the periosteum was gently packed with fine oakum. Antiseptic surgery was in its incipiency and our technic was crude; nevertheless, this case went on to a good recovery. A few weeks after the initial experience I went abroad, the patient was left in charge of the dentist and lost sight of. Some fifteen years thereafter, while I was on a visit "back home," a rather comely young lady accosted me on the street.

"Why, how do you do? Aren't you Doctor Perry?"

"Yes, madam," I answered rather warily, as a modest man should when visiting his old "stamping-grounds" and accosted by strangers.

"You don't remember me, do you? I'm Miss K. Don't you remember the little girl whom you pulled the whole jaw out of? Well, I'm the one."

And a closer scrutiny revealed that she was. The necrosed portion of the mandible had been replaced by a fairly good growth of bone-tissue, there was good joint action and, while the mandible was underdeveloped, there was a satisfactorily working occlusion. Naturally, there was some disfigurement, but not sufficient to be markedly noticeable. Frankly, I was amazed at the result and could not but think how good nature had been to the girl and her doctors.

These two instances are here cited, because they exhibit what I call "results without intent," they show what has been done under unexpected and adverse conditions, and serve as examples which should encourage us to attempt to remedy even the most unpromising conditions that come to us. They date far enough back, having been under observation for over thirty years now, to show that the results secured were permanent, and not affected by later changes in life.

A Mouth-Breather

Case 3. B. K., aged 10 years. This child presents the usual aspects of a mouth-breather. The dental arches are narrow; upper incisors are protruding, as shown in

Figure 4, drawn from a cast;* the molars are in normal relation; has enlarged tonsils and adenoids. The tonsils and adenoids were removed and treatment with orthodontia appliances was begun, traction being exerted by means of expansion-arches, rubber bands, springs, and so on, in order gradually to draw and force the upper incisors backward, the lower incisors forward, and both upper and

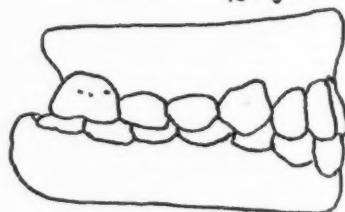
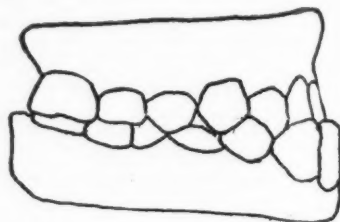


Fig. 7. Illustrating case No. 6

lower molars and premolars outward. These forces work so gently, insidiously and constantly that no inconvenience was felt after the first few days and in a few weeks the teeth had so far improved that the patient had lost the mouth-breathing appearance.

Case 4. T. D., aged 18 years. This person presents an aspect as shown in Figure 5, and is classified as A. II 1. (Work that out in the key.) An examination of the several associated cavities showed adenoids and nasal polypi. These were removed and then my dental associate fitted the necessary orthodontic appliances, to correct the malocclusion. Figure 9 shows how these arches, bands, and so on, were applied.

No absolute rules can be laid down for the treatment of these cases, as each one differs from all the others. One must learn the general laws covering the mechanics of orthodontia and then make the appliances to fit the individual. The successful operator coaxes

*In this and other cases, photographs are not used, because the identity of the patient is private property and may not be disclosed. All illustrations showing features are purely conventional and entirely impersonal.

rather than forces, and coddles rather than drives; he considers the comfort and convenience of the patient, as well as the needs of the teeth, and the appliances when fitted into place cause only slight discomfort, which wears away in a few days as the patient becomes accustomed to the new order of things.

Case 5. Miss B. L., aged 20 years. A case of A. II 2. The casts *a* and *b* in Figure 6 show that the upper teeth not only override the lower too much, but that the incisors are retruded. Hence, it becomes necessary to draw both the lower teeth and the upper incisors forward. This was done, and the final result is shown in casts *b* and *c*, Figure 6, where it will be noticed that the upper incisors are in proper alignment in the arch and the lower teeth have been brought forward by moving the entire lower arch mesially.

A Case of Prognathism

Case 6. K. L., aged 20 years. A case of prognathism (A. III 3.), the mandible being slightly overdeveloped and the upper incisors bunched, and in lingual or distal occlusion to the lowers as in Figure 7. Here the problem is, to move the lower teeth backward, which is accomplished by first directing all of the force against the molars and premolars until they have been reset in their new position, after which the force is reversed, so as to draw the canines and then the incisors back into alignment. The entire set of teeth cannot be moved *en bloc*, but by moving the molars backward a space is provided

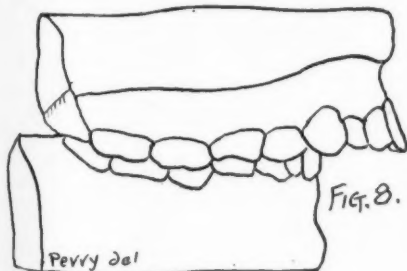


Fig. 8. Case No. 7 illustrated by casts

mesially into which the canines are drawn, while into the space left by the canines the incisors are drawn. This is done on both sides of the mandible at once, and at the same time the upper teeth are brought into alignment and the arch is expanded.

When the two arches harmonize as nearly as possible in size and contour, it will be found that a very good occlusion will have been

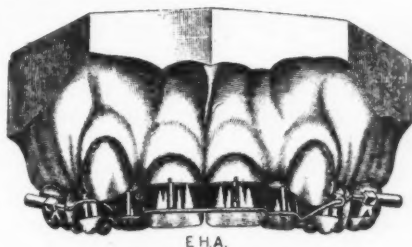


Fig. 9. Shows the application of an angle-appliance.

secured, the prognathism reduced and the growth of the premaxillae stimulated to normal. In these cases, as in all others where teeth are moved, the patient must wear a retention-apparatus for some time after the corrective appliance has accomplished its work—long enough for the forces of normal occlusion to become effective.

Correcting a Receding Chin

Case 7. J. S., aged 35. This man was just awakened to the fact that something can be done for his receding chin and insisted upon having it done. His cast showed an extreme case of A. II 1. (Figure 8), one that would require months of tedious treatment with appliances, because of the age of the patient and the solidity of the setting of his teeth. Also, the patient demanded immediately visible results. Here the lesson learned from Case 1 (q. v.) and from others similar came to mind, so an osteotomy was proposed and readily accepted. Osteoplasty of the mandible for cosmetic purposes has undergone much development within the past two decades; in this case, the separation was made subcutaneously through both rami as follows:

With a blunt-pointed, long, curved perineum-needle or a needle made especially for this purpose, a strong silk cord is passed around the inner side of the ramus on a level and in line with the occlusal surfaces of the lower teeth. To do this, a small incision is made through the skin at a point just over the posterior edge of the ramus in the line of the proposed osteotomy. Through this opening, the needle is carefully pushed until it slips around the edge of the ramus, then its direction is changed so as to carry it forward across the bone, all the time hugging the bone closely, to avoid puncturing the buccal mucous membrane and to include as little as possible of the soft parts within the loop. Should the needle point puncture the buccal membrane, retract it a little and then start ahead again closer to the bone. The blunt

point of the needle will tend to prevent puncturing arteries, veins, or nerves; the curve in the needle enables one to work a way around the bone and close to it, and, if aided by a finger in the mouth, the cord can soon be put in place. Having succeeded on one side, put a cord in place upon the other side before proceeding farther with the operation.



Fig 10. Showing case of malocclusion, uncorrected.

Returning to the first side, over each end of the cord pass a small silver (or metal) tube which is just large enough to permit a Gigli or chain saw to pass through its bore. To one end of the cord fasten the saw and draw it through one metal tube, around the bone, and out through the second tube. The tubes are to be held firmly against the soft parts by an assistant, and not only guide the saw, but, just as important, prevent the buccal soft parts from undue injury and so prevent the formation of a disfiguring cicatrix.

Having sawed through one ramus, the procedure is repeated on the opposite side. When the osteotomy is completed, the anterior portion of the mandible is brought into the best possible position and held there by wiring the upper and lower teeth together, using dental wire (usually German silver or brass) for this purpose. This advancement leaves a V-shaped gap at the site of the osteotomy, which is closed by the formation of a calous, as in fractures. To maintain the rami and body in correct relation, a splint

is applied. The case is treated thereafter as a fracture of the mandible.

This operation, while seemingly a formidable one for the disfigurement, is one which has given good results. The point selected for the bone section is one which gives the most satisfactory occlusion and joint action in the final result; the soft parts, arteries, veins, and nerves are severed at a point where the prospect for their postoperative union is best; and the wounding of the skin is reduced to a minimum, with consequent minimum scarring. The time required for recovery from such an operation is from four to six weeks.

Frequently the question is asked, When should a case of malocclusion be brought for treatment, and to this I answer, Just as quickly as possible after the malocclusion is noticed. If treatment is begun in the very incipency of the perversion, a great deal of trouble is "nipped in the bud," for, every day,



Fig. 11. Same case as in Fig. 10, after correction.

every hour of postponement means a growth of the deformity, an aggravation of the defect. There should be no waiting until the permanent teeth have erupted, since by that time the jaws have reached a stage in their growth and development which renders it more difficult and prolongs the time necessary to se-

cure results. Too long delay may render necessary an osteotomy.

Figures 10 and 11 show the "before and after" of a case treated by my friend Doctor Mendell, in which treatment was begun when the patient was four years of age. The child was a mouth-breather, adenoidous, with a set of anterior teeth much like those shown in

Figure 4. The results are shown in Figure 11, taken when the child was a few months older, at which time there had been established a normal occlusion for a child of that age. This child has now reached the age of 14 years, the permanent teeth are well erupted, and the occlusion at the present time seems to be normal.

The Evolution of Fee Division

By J. G. WALKER, M. D., Iola, Kansas

EDITORIAL NOTE.—We do not endorse the position taken by Doctor Walker—neither do we condemn it. We simply present this phase of the problem of fee division for the free, open and impartial study and consideration of our readers who are interested in the matter from the standpoint of the general practitioner, who usually is anxious to give and anxious to get a "square deal" for everybody.

THE newspaper comment nowadays over the doctors' quarrel as to who has earned and who shall have the money, and the appeal that is being made to the laity of fraud on the part of the trusted family physician in the guise of a friend, calls for a statement of more than the surgeon's side of it, in order that the observer may arrive at a correct and just conclusion.

Only a few years ago there were but very few surgeons, and they were in the cities and were developed in connection with the hospitals and medical colleges. Those surgeons charged as much as they could get—often exorbitantly—and it all went into their own pockets. The family physician made the diagnosis and persuaded his patient that an operation was the best and safest, if not the only, way out of the trouble. He selected the surgeon (and if the family physician is not the most competent person on earth, after knowing his patient for years, maybe, and studying his condition, to select the surgeon to operate, will somebody tell us who is?); and then this family physician was dragged along, to carry the responsibility for having selected the best surgeon and insure safety on the way and through the ordeal, in return for all of which he was recompensed for his expenses incurred and, maybe, an extra five-dollar bill for "gratitude"—but, more often, not. In other words, the dear family doctor was expected to be a "good neighbor," and to look for his reward in the Hereafter.

However, the patient willingly "whacked up" to the "famous" city surgeon anywhere from \$100 to \$500, or more, cash on the day of the operation, often even borrowing or mortgaging his property to enable him to do

so. And it all went down in the surgical hog's pocket. And that was less than two decades ago. Then, if the patient came off with his life and a whole body, he had a less regard for his family doctor, because of his failure to cure him with physic, and proportionately exalted respect for the "big surgeon." In fact, he was even a little proud and was being looked up to in the town and would tell, when the good doctor's ear was near, that he did not begrudge the big surgeon the \$500 a bit, then straightway proceeded to inform his gaping friends just what his trouble had been, at the same time baring his scar for the envious to wonder at.

Is it surprising that candidates for medicine aspired to surgery; a wonder that a young crop of surgeons grew up, to divide the business and the spoils with the jealous old tribe of surgeons?

Only fools teach to others what only they themselves can do. But too late now. The public does not know it; we of the profession, though, do know that ten and more years ago these old jealous surgeons began, in season and out of season, to hammer into the students on the benches a realization of the sinfulness of the division of a fee—"paying commission" was their favorite term. And the students did not dare talk back, as they wanted their diplomas just as much as their specialist professors and surgeons wanted them to send in to them fat-pursed patients, and wanted big fees, yes, and the whole loaf, too. Then, if those anticipating to engage in general and country practice nodded assent, as it were, in the pew, there was a hubbub of dissent in the undertone of the lobbies, and even the internes and the surgeon's assistants under the very noses of

the surgeons said the family physician should share in the spoils of the surgical case.

When the Young Chaps Came In

First thing, young surgeons sprang up and located in the cities and also many in the smaller centers. The latter, especially, began to curtail the surgical supply to the older established surgeons. The young surgeons did not charge so much, and they said to their classmates in general practice, whether in city or in country: "We will do this operation together. It is your case: you assist me and help me in the after-care; or you take full charge of the latter, and we will share the responsibility and do the work for a certain sum agreeable to the patient, in which case we will share the profits in a certain ratio."

Now, the public can easily comprehend that young men from the same or different schools naturally would do this. And it was not long until some of the older family physicians began to turn their cases from the famous city surgeons of the past to these young surgeons; for, the older, exactly like the younger, family physicians recognized that the young surgeons did good surgical work, and in the nature of things must supplant the older men. And no one informed will dispute the fact that some of the best surgeons are yet young in years when they execute their brilliant work.

Furthermore, these men saw that the total charge to the patient was less, even though they got a part of it, than when the jealous old surgeon pocketed the whole thing. And, so, from a sense of self-preservation, the big surgeons grew more bitter and began to talk ethics and fraud and to appeal to the public and the legislatures.

And evils did arise; for, doctors were human before they were doctors, and there doubtless were surgeons who bought as well as physicians who sold patients. And in so far as the fight has saved the public from this, thanks to the few jealous surgeons. No credit is due them, though, for they were prompted solely and exclusively by self-interest.

It is a well-known fact in the profession that some of the famous surgeons who are leading the fight against sharing of fees sent out advertising in disguised form and gave commissions when they were building their reputations. Now these same men want the practice stopped. The reason is patent.

Therefore, many physicians have changed their point of view, and it is neither a com-

mission nor a secret splitting of fees. The general practitioner now says it is *his* case all the way through, and tells the patient so; and after the diagnosis is made and an operation agreed to the attending physician he selects and hires the surgeon as would a contractor—a carpenter, if you please—and the family physician presents a bill in total, which covers all the expenses and fees, his own included.

Now, is it fraud, or immorality, or anything else unsavory for the physician to handle the money part of the transaction, and to hire and pay the surgeon who, in his greatest specialization, is nothing more nor less than a mechanic with a kit of tools? The best of them boast that they are not diagnosticians, but that their business is, to perform operations.

A certain physician who inherited wealth and turned banker said, after an experience in both professions, that he was surprised to find people were much more concerned as to who should care for their money than who should look after their health. And in this case the surgeons are trying heart and soul to make the public believe that the family physician is competent to diagnose the surgical lesion; and also a good man to steer his patients to the surgeon, give comfort and assurance that all will be well, share or shoulder the responsibility, give proper credit to the surgeon in case of recovery, and, if death happens, to take the blame, in the home town, with the relatives and friends of the deceased who always are near to remind him of his bad judgment. Nobody but a physician knows what this means—but, let the surgeon take the "wad."

Then they throw to the physicians the sop—and they catch some of the "suckers," too—that they (the said family doctors) are grossly underpaid, and that the physician should be man enough and should have the nerve and self-respect to present an adequate bill for services, including remuneration for his time, diagnosis, treatment, expenses, and after-care, such as are connected with and leading up to and including the operation and final recovery.

But, after the surgeon has taken the wad, and after the patient has paid to everyone involved more than he should have paid and would have been obliged to pay had he trusted his family physician all the way through, instead of assuming him a rascal, as touching his purse, the family physician, oversympathetic, says, "You have paid a big bill and borne heavy expenses," and then

names a nominal, absolutely inadequate fee. And then even he may carry that fee on his ledger until the book wears out; for, really, the patient feels that he has already paid enough—which he certainly has, if he has satisfied the purse-strings of one of these big surgeons.

Why Not Trust the Doctor You Know?

Now, really, Mr. Patient, wouldn't you rather that your family physician—to whom you confide things that you wouldn't tell even your left hand—should be well paid and share reasonably in the big fee you paid the surgeon, and keep the money at home? It will be more likely to get back to you—don't you think? In many a surgical case, the family physician carries more responsibility, has more worry, and gives you infinitely more time than does the surgeon. And, wouldn't it be wiser for you, Mr. Patient, to trust your physician to handle the entire transaction, agree to pay a certain sum, and let the man whom you know personally hire and pay the surgeon, as well as select him; just as you would let a contractor, in whom you believe, assemble the material and hire the best men in the labor market he can get to build you a house? It is common sense in the one case, and you wouldn't think of doing it any other way; yet, in the other, the big surgeons say it is immoral and a fraud. Yes, sir, you would.

After all, it is not the patient who is after the physician's scalp, it is the big surgeon. For, the writer, when he was an interne, knew a rich merchant to pay \$300 for a simple appendectomy that required only a few minutes of the surgeon's time; and the merchant said: "I don't care for the \$300 for this operation on my daughter, but I would rather give some of it to the other doctors concerned in the case."

And, if you can't trust the family physician (without whose presence you would be afraid to die) with enough of your money to cover the transaction, as well as your life, how can you trust the surgeon—often a stranger—who has virtually no personal interest in you? In that case, your family doctor is a consummate scoundrel, and you ought to turn the rascal out.

Look around you, my friend. With all this fraud and graft of which the general practitioner has been charged guilty, lo, these many years, will somebody tell us why we don't find them rich men? Most of them who have grown gray in the service possess less of the world's goods than do the successful

men in other callings. Yes, many of them pay interest or rent on the roof over their heads all their lives.

The editorial comments of the newspapers certainly are wrong. The most progressive physicians of the state attended the Wichita convention, and the general practitioners of the state as well as of the country at large are right behind the "adverse element" who pigeonholed the surgeons' resolution known as Doctor Stewart's resolution. And you would not find a physician in a day's travel, in this or any other state, certainly not in Iola, who believes that the surgeon should be protected, by legislative enactment, in charging such fees as the confessed instigators of this move wish to do, and pocket the whole thing; leaving the everyday physician to seek just remuneration from a patient already drained dry and often angry with his physician for having sent him to a surgeon whom he now terms a robber.

Where Lies the Public's Safety

The public's only safety is to trust to an honest physician. Bless you, the rank and file of physicians wouldn't rob you or murder you half as quick as would the ordinary man you meet. And you know it, or you would not trust your wife and children—these dearest treasures on earth—to his fallibility. Now, would you?

Another thing. Many of the fellows who advertise as exclusive surgeons not only want to pocket all that the patient is able to pay, but, if the patient lives near enough, they often succeed in supplanting the physician as family adviser. Call it commission, if you darn please. The world is slow to balk at commission elsewhere. You put nothing in your stomach or on your back that hasn't the commission earmark stamped upon it, from the spring fruit on your table to a piece of real estate as small as a family burial lot. The only noncommissionable thing known is the present day fashionable skirt—that is too narrow to get even the smallest commission into. But, as heretofore stated, this is not a commission-question.

The family physician selects the best surgeon he can get and hires him; he collects a sum sufficient to pay the surgeon and all assistants, to meet incidental expenses, and to remunerate himself. This is the last step and present status of this question, and it would seem that this would be satisfactory. If legislation is invoked in behalf of the surgeon, one thing is likely to happen that he hasn't thought of, apparently. It will

happen that, instead of taking all the patient has or as much of it as he can get, his fees will be legislated downward until they will look to him like thirty cents on a Saturday night. And this, in order that the patient may have left to him the wherewithal to pay other worthy and useful people, including the family physician, the grocer, and undertaker sometimes.

Since the foregoing was written, the May number of *The Kansas Medical Journal* has come to hand, and from it I quote in corroboration of what I have said, as follows:

"As *The Capital* suggests, this fight on fee-splitting is not a local affair, inaugurated

by a local physician. It is a widespread movement inaugurated many years ago, and, strange as it may seem, among its strongest supporters are the men who are accustomed to split fees. *The Capital* is mistaken in supposing that when fee-splitting is prohibited the fees will be smaller. The only difference will be that the surgeon and the specialist will get all the fee."

In that case, will you take kindly to another bill from the physician, for his services in connection with the surgical case? If not, then it is high time for the public, as well as for the physicians, to tell the surgeons where to head in.

The Mystery of the Double "C"

Chapter One of "Lens, Reagent & Co."

By B. G. R. WILLIAMS, M. D., Paris, Illinois

THEY tell me that the London police are still searching for the Black Wharf Gang; and that, of course, is what they are expected to do. It has leaked out, though, that the gang, in return, is adopting every means available to run down Old Mistletoe. And this is truly the keen hunt; indeed, it is a quest for vengeance. Ever hear of Old Mistletoe, the parasite? No? Well, just at present no one seems to know much concerning him and his everyday life; still, some of his capers have leaked out, and I am going to repeat them as they were confided to me.

Old Mistletoe was no stool-pigeon—not he. Of course, he may have assumed the part incidentally and upon his own responsibility; the police, however, would much prefer to have the old man under lock and key, rather than all the criminals in London. No, you will not find his photograph in the rogues' gallery nor will the average sergeant acknowledge that such a person exists; nevertheless, Scotland Yards is perplexed, for they have to deal with a genius. But he got in bad with the thugs at the onset, and this is how it happened:

Bonnie Jim had made a big haul from an easy burglar-proof safe—but never mind details. It is sufficient to mention that one midnight Bonnie was walking down Hay Street with five thousand dollars of the worldly wealth of Jake Schnadker, the jeweler. To sneak would have been fatal, so Bonnie walked with a decided swagger. Doubtless

the police would learn of the business only when Jake's shop would be opened for the day.

Then, suddenly, an old gentleman stumbled out of a taxi and crossed the walk in front of him with an approved champagne reel, presumably aiming for the door of his apartment. "An old sport!" Sport?—it wasn't two minutes when Bonnie found himself securely handcuffed and was riding with the old man toward the nearest police-station. In an inside pocket, just under the detective's gold-plated badge, rested Bonnie's (or, rather, Jake's) five thousand. Fifteen minutes later, the taxi stopped and Bonnie was pushed out at a conveniently dark spot and deserted. Whereupon he used some rather bad language, mainly upon the excuse that both the old grafter and the driver had laughed kind o' pleasantly; then he tried to make it to the river. Bad luck again—ere covering a block, he was nabbed by a patrolman. Of course he kept silent, while there was nothing to show that a shop could have been robbed by a man found handcuffed some ten miles away. The thing was kept out of the papers, and the five thousand was not returned to Jake.

The Black Wharf Gang bumped up against Old Mistletoe two weeks later, when their rescue car broke down a mile or so from the scene of activities and had to be deserted. Parlor Pearl had sneaked out of an apartment entrance with Mrs. Jean Shore's three-thousand-dollar necklace. Instructions were,

to walk one block carrying her parasol under her right arm, and she would be picked up by the rescue-machine and transferred as rapidly as possible from the section. Pearl walked the block. She walked another half block with no aid in sight, when she heard an alarm from behind. She did what was, perhaps, the most sensible thing to do under the circumstances—turned into a motion-picture show, took a seat near the wall, and tried to think out a plan of escape. Naturally, a thief would try to run, she reasoned, and the police would look elsewhere first.

A nice appearing old gentleman sat down beside Pearl and ventured the information that some kind of a burglary was causing a great amount of excitement just outside. Presently the lights were extinguished and a rather catchy picture took her interest for the moment. Indeed, she was regaining some of her composure and courage, when the old man whispered into her ear, "You might as well hand them over to me. You are surrounded. One squeal, and our witnesses will send you to the coop." It did not take her long to reason it out. Old Mistletoe arose and beat it, after warning her not to leave the building for at least five minutes. The gang believed her story, but it took several other bitter lessons to send them upon their campaign for vengeance.

Meanwhile the stupid police are searching only for the gang.

* * *

It has been claimed that, when pyococci are introduced into a cold abscess, they are actively destroyed. It may be that this is accomplished in part by virtue of the phagocytic action of the body-cells. But we know that the tubercle bacillus is a selfish germ, seeking neither the company nor the assistance of other bacteria, but preferring to work alone and hidden, taking his own good time for the destruction of his victim. And when the other germs attempt to keep him company he resents it.

But, after a certain amount of lung involvement has taken place, either because of attenuating influences or because he saves his strength to gain newer footholds, the tubercle bacillus appears to permit certain other microparasites to take a part. Of these, we must mention the pyococcus, streptococcus, pneumococcus, bacillus mucosus capsulatus, micrococcus tetragenus, micrococcus catarhalis, and certain molds.

This brings us to the mystery of the chronic cough, and the means used by Lens, Reagent & Co. to determine the criminals at fault.

According to the routine of the Company, Reagent first tried his hand; and Sputum, the main witness, was given a questioning. If Albumin could be located in his company, evidence, although circumstantial, would be rather conclusive that bacterial criminals, and especially the sneaking Tubercle Bacillus, were hidden and up to mischief. When it developed that Albumin could not be found, Reagent, with his wealth of experience, realized that his quest would, probably, prove unsuccessful.

It is, I believe, a generally accepted fact that, in chronic lung conditions, where kidney and heart edemas can be ruled out, albumin (serum-albumin) is a very important finding, pointing to the probability of tuberculous infection. Conversely, when albumin is absent, in all likelihood the tubercle bacillus and tuberculous infection will not be found.

Returning to our story, it may be remarked that Reagent played his best card first; still his work was not done. Searching inquiry brought from Sputum the fact that Hemoglobin was present, whereupon Reagent turned the case over to Lens, together with this bit of very weak circumstantial evidence against Bacillus Tuberculosis.

Lens likewise used his best trick at the outset. The chief witness now was examined repeatedly for the crooked red rod. Moreover, when ordinary processes availed nothing, severe sweating by his assistants, Antiformin and Salt, were undertaken. However, no confession could be forced from Sputum.

Then came the question of clews. Bacillus Tuberculosis being somewhat careless at times, leaves behind him elastic fibers, mononuclear cells and cheesy debris; none of which could be found, though.

Nevertheless, Lens was a wise chap. Knowing of the working of Old Pyococcus, the parasite, he left off for the moment his search for the chief of the red gang, arguing that he may have deserted and left the old gentleman to finish the work. But neither Old Pyococcus nor clews (polynuclear cells) could be found.

Right at this point I wish to sound a caution. Every pyococcus in a sputum does not mean pyococcus infection. The mouth-cavity should be washed thoroughly, so that oral bacteria may not be carried out by the sputum and, hence, cause confusion. Moreover, pyococci must be found in considerable number *intimately mixed with the mucus or pus hawked up from the lung* in order to be considered valuable finds. And, most important of all, quite a large number of polymorpho-

nuclear cells (true pus-cells), and endothelial leukocytes, always are present along with the pyococcus, when this is the active infective agent.

Continuing, parenthetically, it may be that the reader will demand a definition of "pyococcus"—a word recently coming into use. The term staphylococcus is somewhat objectionable, because the bacterial units do not always form grapelike clusters. Single cocci or diplococci in pus, when planted upon artificial media, may show the morphological and cultural characteristics of staphylococci; but, in the examination of smears, this point might be overlooked. In most specimens of pus, however, the mass arrangements will be noted. There are many staphylococci, but there are few pyococci. Other cocci form pus, but the pyococcus works overtime at the job.

So, these were the methods used by Lens, Reagent & Co.; and they certainly cannot be criticized. For, considering the efficiency of the Vaccine Service, a successful hunting-down and prosecution of any criminals that

might have been present would have proved of great value to the cell community.

About this time, however, Hand, Ear & Co., a rival detective firm, were engaged. By working along other lines, they at length made some exceedingly interesting observations. Finally the trouble was successfully located and accurately mapped.

It is sufficient to state that the diagnosis was that of aneurism of the thoracic aorta, and that Lens, Reagent & Co. failed in this case. The condition was a catastrophe, but not a crime. However, everyone gained. It was realized by the chief of police that both firms were of great service. Inasmuch as their methods differed, the problem upon which one failed, possibly might be solved by the other. Accordingly, a working-agreement was planned for the future. However, Lens, Reagent & Co. resolved that in the next case their rivals must come out second-best. We shall see how this was realized.

(To be continued)

BALLAD OF THE BELL

By E. O. LAUGHLIN, M. D., Paris, Illinois

No more, the family mare astride,
The humping Hired Hand has to ride
In good old Tam o'Shanter style
To fetch the doctor, mile on mile.
Adventure and romance are flown—
They call him on the telephone.

What boots it, doctor, where you go—
To club, to lodge, or, eke, the show?
Or to your room in deep research,
Or (maybe!) to your pew at church?
Some lackey calls in strident tone:
"You're wanted on the telephone!"

When others' hours of toil have fled,
When pleasures are like poppies spread,
Ghost of each feast and festival,
Ubiquitous, perpetual,
You greet those tidings with a groan—
"You're wanted on the telephone!"

The fairest day is 'neath its blight,
Its specter haunts the wildest night.
Of every joy it sounds the knell,
The dangling, wrangling, jangling bell—
Across your dearest dreams they moan,
"You're wanted on the telephone."

O doctor, when your fleshly ills
Are ended and you quit the pills
For Paradise, Oh still, I fear,
Some sprite will whisper, drawing near
Your seat beneath the great white Throne,
"You're wanted on the telephone!"

What Others are Doing

ARSENOBENZOL COMBINATION WITH SILVER SALTS

Although starting from Ehrlich's original work in arsenical chemotherapy, Danysz (*Ann. d. l'Inst. Pasteur*, Mar., 1914) tells how he proceeded independently on these lines, and finally arrived at a combination of the bromide of silver with dioxydiaminoarsenobenzol for the treatment of trypanosomiasis and syphilis; his thought being to fortify the arsenical compound by the silver, each element acting in its way without individually overwhelming the infected host. Thus far he had treated 80 syphilitics, and the results were exceedingly promising.

ACONITINE IN CEREBRAL HEMORRHAGE

The Medical Record quotes editorially from the work of Tilnay on the "Modern Treatment of Nervous and Mental Diseases," as to the value of aconitine as an active agent for the reduction of blood pressure. It may be given hypodermically to patients suffering from cerebral hemorrhage, although, if the patient is able to swallow, he believes it preferable to administer the drug by the mouth, using tincture of aconite in doses of 5 minims. If the initial dose produces no effect upon the blood pressure, the dose should be repeated at the end of an hour; and if the pressure is 200 mm. or over, an initial dose of 10 minims may be given. The pressure readings should be taken every half hour. The remedy may be continued for several hours, until the desired depressant effect is secured. Dilatation of the pupil, vomiting, irregularity of the pulse, cold, moist skin, an erythematous rash and dyspnea, are signs of intoxication, pointing to the discontinuance of the drug.

What constitutes a sufficient fall of the blood pressure? The answer is that 20 to 30 mm. reduction may be deemed sufficient; when the initial pressure is well above 200 mm., the aim should be to bring it down below this point.

In this connection we may call attention to the superiority of the soluble alkaloidal salt, aconitine hydrobromide, over the galenic preparations of aconite. The granules can be dissolved in water and the solution given through a medicine dropper if necessary.

Already it has been suggested that hypodermic injections of emetine hydrochloride may prove most effective in cerebral hemorrhage. It should be tried. Will anyone having experience with the remedy in this condition report his results?

HOPE FOR THE EPILEPTIC

Two very interesting articles upon the treatment of epilepsy have occurred recently in two of the American medical weeklies. The first which I have in mind is that of Israel Bram, who, in *The New York Medical Journal*, March 20, 1915 (p. 573), strongly advocates venesection in the treatment of this disease, upon the hypothesis that a fit is probably consequent upon a sudden increase of blood pressure, associated with a tremendously high increase of intracranial tension. This condition can best be overcome by venesection, which not only relieves the patient temporarily, but, according to Bram, seems to favor a complete cure through overcoming of the epilepsy habit.

The amount of blood to be removed varies with the size or condition of the individual. A plethoric adult weighing approximately 145 pounds, can spare from 20 to 30 ounces of blood at a sitting. While no definite rule can be given as to the frequency with which patients should be bled, it is Bram's experience that it is necessary to repeat the operation every two to six months. The indications presented for this procedure are return of dizziness, fullness in the head and flushing of the skin. These symptoms are usually premonitory of an impending fit.

The contraindications to venesection in epilepsy are few, anemia being the only one mentioned by the author. Bram also suggests the use of an occasional laxative saline to assist elimination and reduce blood pres-

sure, together with sodium nitrite, potassium iodide, and thyroid in properly selected cases.

The other paper to which reference was made at the beginning of this article was that contributed by Charles A. L. Reed, of Cincinnati, to *The Journal of the American Medical Association* (p. 1047, March 27, 1915). Doctor Reed has undertaken some work which may prove revolutionary. His observation of cases of epilepsy has convinced him that this disease is etiologically closely associated with intestinal autointoxication. These patients are all constipated, and in every stage of the disease there are symptoms characteristic of the absorption of toxins of intestinal origin. Constipation of mechanical origin is the striking fact revealed by his experience with epilepsy.

As a result of his investigations, Doctor Reed has arrived at the conclusion that epilepsy is an infectious disease and that this secondary autointoxication is a result of the presence of bacteria (probably of the gas-poisoning series) in the intestinal canal. If the function of the bowel can be restored so perfectly that the elaboration and absorption of these bacterial by-products can be arrested, the number of fits will be reduced and cure may follow; this conclusion being based upon a large and growing clinical experience.

To permanently relieve these cases of epilepsy, therefore, Doctor Reed believes it essential to resort to the surgical procedures advocated by Lane and others for the correction of intestinal stasis. He has also used, with good success, autogenous bacterins prepared from bacteria found in the blood and alvine discharges, believing these to be the etiologic factor in the production of the disease. He promises a more complete bacteriologic report in a later paper.

A number of cases are discussed, in which remarkable benefit followed surgical intervention.

A HINT FOR THE HYPODERMIC INJECTION OF EMETINE

In an excellent article, published in *Items of Interest*, February, 1915, on "Amebæ in Pyorrheal Pockets," C. Edmund Kells, a New Orleans dentist, gives the technic which he employs in detecting the entameba buccalis and in injecting emetine hydrochloride for the treatment of pyorrhea. He prefers the hypodermic method, as advocated by Doctors Bass and Johns, of Tulane University.

The method of treatment which he advises has been so often described in these columns

that there is no need of repetition. However, he makes one suggestion which is worthy of careful note, in view of the pain and irritation which occasionally follows the subcutaneous administration of this drug. This suggestion is, that the emetine should be injected *warm*. Unless the solution is freshly made, the syringe should be heated by rinsing it out well with boiling distilled water before filling it with the emetine solution. The heat of the syringe thus induced, will warm the emetine to the proper temperature before injection.

This is a little point, but worth keeping in mind. It is highly probable that if the solution is injected at the temperature of the body, it will prove less irritant than when it is injected cold.

By the way, an equally good suggestion is to use only *warm* solutions of emetine in making applications to the pus cavities in the mouth. Cold solutions of all kinds are anything but pleasant to sensitive teeth.

PAPAVERINE — A LITTLE-STUDIED ALKALOID OF OPIUM

If my memory serves me right, opium contains about twenty-five alkaloids and active principles. Count over on your fingers how many of them you know anything about. With morphine and codeine I suspect that your experience begins and ends. Nevertheless, there are other alkaloids in this substance which *may* be just as valuable as the two just mentioned. For instance, last month we gave an abstract from the *Wiener Medizinische Wochenschrift*, telling of the successful use of papaverine, one of the opium alkaloids, in the treatment of whooping-cough.

I find more about papaverine in the December 14, 1914, number of the *Berliner Klinische Wochenschrift*, in which Julius Pohl gives some interesting facts concerning the opium principles. He declares that papaverine exerts the same gastrointestinal action as morphine, producing constipation and relaxing spasm of the uterus and other smooth muscle-fiber, acting in this respect much like atropine. It also reduces blood pressure to a marked and lasting degree. Furthermore, it seems to control many cases of vomiting, particularly when these are due to pyloric spasm. Experimentally it has been found to reduce the excretion of sugar after phloridzin or epinephrine. A central depressant action does not follow in the doses ordinarily administered to produce the therapeutic effects just described, though sometimes in

dogs such depressant action can be elicited if sufficiently large doses are administered.

Here is an alkaloid which deserves more study. Why do not some of the bright men in the profession try it out, both on animals and in suitable cases? If my memory serves me right, the average therapeutic dose is in the neighborhood of 1-6 grain. Merck gives the dose of the hydrochloride at from 1-12 to 3-4 grain.

THE HYPERSECRETION THE OBJECT OF ATTACK IN GASTRIC ULCER

In view of the frequent occurrence of hypersecretion and hyperacidity in gastric and duodenal ulcer, medical writers have recommended special treatment for these abnormalities. Now again W. Wolff, of the Jewish Hospital at Berlin (*Med. Klin.*, 1914, p. 1358; cf. *Ther. Monatsh.*, 1914, No. 12) emphasizes this line of therapy. In addition to other accepted methods of reducing acidity of the stomach, Wolff lays stress upon associating the ulcer-diet with plenty of fatty emulsion (of perfect preparation) and putting the patient upon atropine.

TREATMENT OF INCIPIENT SENILE CATARACT

R. Kaz, of St. Petersburg, confirms his own previous results, as well as those of other writers (*Woch. f. d. Ther. d. Aug.*; cf. *Ther. Monatsh.*, Aug., 1914), on the usefulness of instillations of potassium iodide for arresting incipient cataract in the aged. He uses solutions of from 1-2- to 10-percent strength; but this point must be discovered for each individual case. The treatment must be continued uninterruptedly for a long period.

TREATMENT OF TROPICAL DISEASES

That the treatment of tropical diseases demands of the medical man nothing more than the rational application of principles involved in the management of those encountered in northern countries, is emphasized by P. Muehlens, of Hamburg, in a lengthy contribution to the *Deutsche Medizinische Wochenschrift* (1914, p. 1250). The following brief abstract shows the author's ideas regarding the central therapy in a few of the diseases prevalent in tropical climates.

In the case of amebic dysentery, emetine now offers us a remedy that overcomes the intestinal symptoms and almost certainly eradicates the parasite. As a rule, for

adults, the hypodermic injection of 1-10 Gram (1 1-2 grains) once a day, for four consecutive days, effects a cure. Not infrequently the bacillary form of dysentery also is beneficially influenced.

In Asiatic cholera, nothing approaches in effectiveness the parenteral administration of sodium-chloride solution, ordinarily introduced under the skin, or, in critical cases, by infusion into the veins. Severe symptoms can be obviated, mostly, by means of one of the cholera-serums (those of Kraus, Salimbeni, Schurupoff, Tomarkin, and Carrière being instanced). The prophylactic vaccination according to Haffkine and Kolle is referred to as probably useful.

In beriberi, often acute cardiac attacks set in, and then venesection is indicated. For the paralysis of the diaphragm, faradization of the phrenic nerve is advised, with the electrodes disposed over the gastric region and the posterior attachment of the sternocleidomastoideus muscle.

For typhus fever, some good results have been obtained, in the Balkan wars, with injections of convalescent serum. In mild forms of bubonic plague, vaccines and sera offer some hope; against severe attacks medical art remains helpless. Suppressed diuresis and cardiac insufficiency constitute serious complications of all tropical diseases.

INTESTINAL TOXEMIA AND DIABETES

Is there a recognizable prediabetic stage? We gather from an article contributed by Dr. A. C. Croftan to *The Medical Record*, December 26, 1914 (p. 1085) that there is such a stage, at the beginning purely functional in character and characterized by dyspeptic symptoms, vague aches and pains, scanty, concentrated urine, disturbances of the capillary circulation, palpitation, headache, malaise, and the like. The picture, says Doctor Croftan, is that of a chronic alimentary intoxication, presumably the result of incorrect or disturbed food degradation, especially of the albumens, aided by the decomposing action of putrefactive bacteria upon abnormal albumen fragments in the bowel.

The later development of alimentary glycosuria in these cases is presumably the result of injury to the liver and pancreas by the poisons developed in the intestinal canal.

To place these patients at once upon an antidiabetic diet is bad practice, declares Doctor Croftan. If the urine contains no dextrose, or small quantities of this sub-

stance, but does contain large quantities of the aromatic bodies, then the diet should be arranged primarily for the reduction of the latter substances, and should consist largely of vegetables, fruits, coarse cereals, bran breads, nuts, milk diluted with lime water, buttermilk, fats and oils, with a minimum of meat, fish, poultry and eggs, and preparations made therefrom. All alcoholic beverages and malted liquors, and all spices and condiments, are forbidden. Such a diet produces a bulky stool, while nutrition is well maintained. After a time it may be made more generous.

Medically, Doctor Croftan advises administering pancreatic and bile preparations—for instance, glycerin extracts of the pancreas, and the bile-acid salts. Alkalis are also indicated, and intestinal antiseptics may be administered, though Doctor Croftan seems doubtful of their value.

If we may add a word of suggestion of our own, it would be that the conditions which Doctor Croftan outlines are exactly those which call for the administration of preparations of the Bulgarian bacillus. As a matter of fact, the reports of Beveridge, Boston, and Horowitz show that many of these cases of diabetes, even when advanced, do remarkably well on cultures of the Bulgarian organism, the reduction and even the disappearance of sugar from the urine, and improvement of all symptoms being a very frequent result of such treatment. Bile salts are certainly indicated, and pancreatic preparations can do no harm and may prove of much value.

QUARANTINING OF MEASLES

The New York Board of Health has discontinued fumigation after contagious diseases, and the same practice is being adopted in other large cities. In Chicago, for instance, the method of quarantining has been entirely revolutionized and the length of confinement greatly shortened. This is particularly true as regards measles. Anderson and Goldberger, of the United States Hygienic Laboratory, have shown that this disease is produced by a droplet infection from the secretions of the nasal and buccal cavities. Only those persons will be infected, therefore, who come in contact with these discharges, which, however, may be carried by fomites, i. e., on clothing and other material coming in contact with the patient.

"The virus of measles," says *The New York Medical Journal*, "is contained in the blood at least 24 hours before the eruption, but

begins to fade about 24 hours thereafter. During this period monkeys have been successfully inoculated. The contagious stage of measles is the pruruptive or catarrhal stage. It is during this period that the disease is transmitted; and the diagnosis must be made and proper isolation is necessary to prevent the spread."

For many years the bran-like epithelium thrown off by patients suffering from measles has been considered the principal means for transmission. This theory has now been discredited. It is not the epithelium which causes the trouble; it is the discharge from the nose and throat. In two or three weeks and after the disinfection of clothing and the like, the quarantine may be raised without fumigation and without fear.

CHECKING TYPHOID FEVER IN THE ARMIES

Last month we referred to the results being obtained from prophylactic vaccination against typhoid fever in the British army. Here is another report on the same subject, taken from the British War Office report put on file March 4. The following cases of typhoid fever occurred in the British army on the continent:

	Cases	Deaths
Uninoculated soldiers.....	359	48
Fully inoculated soldiers (2 doses within 2 years).....	111	1
Partly protected (1 dose).....	136	1
Total.....	606	50

From this it appears that 57 percent of the cases and 96 percent of the deaths have occurred in those who have not received this protection, although the unprotected ones doubtless form a small minority of the total number exposed. This experience is exactly in line with that of our own army.

EMETINE IN DYSENTERY

So much has been said about the use of emetine in the treatment of pyorrhoea during the last two or three months that we may be inclined to forget that this drug made its first great reputation as a cure for amebic dysentery. The latter disease is by no means uncommon in the United States; indeed, there are thousands of cases of this kind of dysentery in our southern states, and in case of doubt, especially in cases which resist the ordinary methods of treatment, emetine should be given a trial. Chronic dysenteries

are always suspicious, whether seen north or south.

Randolph Lyons has a very interesting paper upon the use of emetine hydrochloride in amebic affections in the February number of *The Southern Medical Journal* (p. 119). In this paper he brings out the important point, that emetine, whether taken by the mouth or given subcutaneously, exerts its specific action only upon those entamebæ which are within reach of the circulation, that is, in the tissues. Amebæ which are free in the lumen of the bowel, are not influenced by the drug, which is not eliminated in the feces.

Lyons says that considerable advance has been made in the mode of administering emetine. The best method of giving it is by subcutaneous injection. The oral route is not to be recommended because of the intestinal irritation which it produces. However, it may be administered in keratin-coated pills, since it is not strongly emetic, but the dose should be small, that is, from 1-6 to 1-3 grain.

It is inadvisable to give large doses of emetine by the needle. One grain a day meets every indication in the majority of cases of amebic dysentery, although in acute cases, with hepatitis, sometimes as much as 2 grains daily may be necessary. To obtain its effect quickly, the individual dose should be small, preferably 1-3 grain, since this dosage is free from local irritation and is quickly absorbed into the blood stream. Two or three such doses may be given daily. Any single dose above 1-2 grain is more than likely to cause local irritation and thus retard absorption.

In treating these cases of amebic dysentery, Lyons declares that it is inadvisable to continue the injections for more than four or five days if the stools are apparently normal, provided the total duration of the course of treatment does not exceed two weeks. He calls attention to the fact that the prolonged subcutaneous use of even moderate doses of emetine may produce or keep up a diarrhea; hence the desirability of avoiding too long a course of medication of this character. He has noted one case of peripheral neuritis following prolonged administration of the drug.

In the few cases which resist treatment or tend to recur, the probabilities are that the entamebæ have become encysted, in which form they resist treatment. In these cases an intermittent series of injections should be adopted in order to reach the organisms when they are becoming active. A secondary

course may be given after intervals of two or three weeks, and this need not last more than four or five consecutive days. The dose of emetine should be 2-3 to 1 grain daily, preceded by a preliminary magnesium-sulphate purge.

WILL EMETINE ABORT TYPHOID FEVER?

One of the most astounding clinical suggestions relative to emetine which has come to our attention is that made by Dr. W. L. Frazier in the March 20, 1915, number of *The Medical Record* (see p. 476). In this paper Doctor Frazier declares that he has treated 82 cases with hypodermic injections of emetine hydrochloride, and as a result the majority of his cases were aborted, or cut short in from two to four days. In only 6 cases out of the 82 treated by this method did the fever run longer than four days after the treatment was begun. Of these 6, not one lasted more than six days.

Doctor Frazier has made some interesting animal tests. For instance, he has shown that the blood serum of a goat, withdrawn from the animal after three injections of 1-2 grain each of emetine, will not serve as a medium upon which to grow typhoid bacilli, and a colony planted on this dies within 10 hours. The same bactericidal action is manifest when efforts are made to grow this organism on bouillon and agar.

Doctor Frazier uses the emetine not only to abort typhoid fever, but as a prophylactic therefor. It should be employed as early as possible in every case, and it should also be given to patients known to be exposed. He considers it entirely safe and nontoxic. One-half grain is the adult dose employed, children bearing relatively large dosage. He usually gives the injections at 12-hour intervals, but they may be given at 6- or 8-hour intervals if required. This dosage is continued until the temperature falls to within one or one and one-half degrees of normal. As accessory treatment he keeps the bowel cleaned out with a little calomel or calomel and phenolphthalein.

Doctor Frazier speaks highly of the use of emetine hydrochloride as a hemostatic in typhoid fever. He says: "I have never seen a fatal hemorrhage following its late use; it acts favorably, but slowly, even in the third week."

Two cases are reported in detail. The first patient complained of feeling unwell on December 3, and on December 9 the abortive

treatment was begun, the temperature at that time ranging from 102° to 103.8° F. By December 12, the range was from 98.4° to 99.1° F. Widal was positive.

The second patient, a young man of 25, became sick about August 1, and was first seen by the Doctor on August 12. The emetine treatment was begun on August 15, the temperature at that time, as shown by the chart, being 104° F. It had fallen to normal by August 19.

This report is certainly a most remarkable one, but it is not safe to assume therefrom that emetine hydrochloride is necessarily an infallible panacea for typhoid fever. However, it has much promise, and this report should encourage many physicians to give the drug a trial in the treatment of this disease, of course in association with proper eliminative measures and thorough intestinal antisepsis with the sulphocarbolates.

EFFECT OF STROPHANTHIN UPON CARDIAC RHYTHM

The effect of intravenous injections of strophanthin upon the rhythm of the heart has been studied by H. G. Schleiter (*Amer. Jour. Med. Sci.*, 1914, p. 343) in 20 individuals, 10 of whom exhibited an irregular pulse. In the latter group, the treatment proved remedial. The influence of the drug became noticeable, mostly, within twenty or thirty minutes, attained its maximum in seven or eight hours, and was maintained for from three to ten days. The active dose was found to range between 1-2 and 1 milligram (0.0005 to 0.001), and it should not be repeated before the expiration of forty-eight hours. In 2 of the cases, paroxysmal tachycardia ceased to reappear; the author is uncertain, however, whether this is ascribable to the injections.

The other 10 subjects had a regular pulse, and in them no particular effect could be observed, beyond exceptionally a slight, transitory one.

A PRACTITIONER'S OPINION ON HYOSCINE-MORPHINE ANESTHESIA

In an article which we find in *The Illinois Staats-Zeitung*, a physician by the name of Albert A. Ripperger discusses at some length the so-called twilight sleep as employed for rendering childbirth painless, introducing his remarks with the declaration that nothing else has produced such a commotion in the press since the announcement of Friedmann's

tuberculosis cure. Then he goes on to condemn in unmeasured terms the conscienceless exploitation in this country, by inexpert lay journalists, of the scopolamine-morphine anesthesia, and strongly warns the women of the dangers confronting them and their children from these drugs.

He particularly inveighs against the formation of women's clubs for the promulgation of the idea, stating that they are not the arbiters as to the adoption of this measure—as criminally advised by magazine hack-writers and other agitators—but that it is the physician who must decide in every instance; for, he alone can judge. And likewise he enjoins every accoucheur to remain steadfast and under no circumstance to allow himself to be swerved from the path of professional duty by the pleadings of women he is to deliver; they must ever bear in mind that the German experts, including even Gauss himself, do not disguise the lurking dangers, naming as contraindications, for instance, disturbances of circulation and respiration, general weakness, febrile states, acute anemia, and contracted pelvis. Incidentally the author refers to the fact that the scopolamine-morphine narcosis first was publicly suggested by the German physician Schneiderlin, who employed it in surgical operations.

After uttering these fair warnings, Doctor Ripperger frankly writes: "Nevertheless we can, with clean conscience, aver that in the scopolamine-morphine narcosis we possess an excellent, yes, wonderful means of ameliorating the often almost unendurable birthpangs; provided the remedy is not administered haphazard and after some fixed, routine rule, but only after a strict individualization. Neither should the narcosis be greatly prolonged (never for days!); rather should the injection be reserved for the appropriate, critical moment, at the culmination of the parturition, or for overcoming spastic labor-pains. Thus used, minimal, harmless doses will suffice.

"Moreover," he continues, "it is highly desirable to drop entirely before the public the term 'daemmerschlaf,' twilight sleep, or any such particularizing designation (especially romantic ones captivating the public fancy), since they tend to engender erroneous conceptions—even, indeed, in the mind of the medical man. Scopolamine, or its morphine combination, should not be represented as peculiarly detached from the rest of the materia medica, but merely be looked upon as an excellent remedy to be employed whenever and howsoever as the competent clinician considers indicated; but never to

be given indiscriminately to every woman giving birth. Thus prescribed, no specialist need be called, but any competent practitioner can employ this medicament exactly as he does, in his private practice, in the case of other powerful poisons—strychnine, atropine, aconitine, and the rest."

Then the author mentions a recent experience in his private practice in which the "really wonderful action" of small doses of scopolamine-morphine was demonstrated, "the most striking action of a remedial agent ever seen."

He was called to a woman having her first child, who for twenty long hours had suffered torments, without there being any progress. He injected a small dose of hyoscine-morphine, and very soon the spastic pain had completely disappeared. In the course of three hours, two further small doses were injected, when the child was born under absence of all pain and without harm either to mother or child. At no time was narcosis such that impairment of recognition occurred, the woman having retained, throughout, complete consciousness; yet, she experienced absolutely no pain. Ripperger concludes:

"Truly, a triumph of modern healing art! Twilight sleep, correctly employed in properly selected cases, is a blessing; twilight sleep, employed routine-fashion and in defiance of conscience, is a calamity."

HYDRASTOPONE: A NEW ANTIDYSMENORRHEIC

H. Walther, of Giessen, has made a few trials with the preparation named in the head line (*Med. Klin.*), and his results have been so satisfactory that he advises further tests of its action. Hydrastopone is a mixture of papaverine and hydrastinine, thus combining the vasoconstrictive action of the one and the antispastic action of the other. The author has found it valuable in dysmenorrheas of various character.

KARLSBAD SALT AS A VULNERARY

In a communication to the *Deutsche Militärärztliche Zeitschrift* (1914, No. 8), Doctor Posner praises the virtues of Karlsbad salt in the treatment of wounds of various descriptions, as established in military hospitals. In particular, there are mentioned operative wounds that heal by granulation, infected shotwounds, lanced furuncles, leg-ulcers, burns, and so on. The salt is applied as soon

as pus discharge begins to diminish, whereupon the wound surface becomes dry, and the epithelial edge rapidly advances, while healing is favored by not disturbing the dressing for from three to five days.

The foregoing is abstracted from the *Militärarzt*, so, we cannot decide whether the author employs a solution of given concentration or the salt in substance. It might not be amiss to experiment (carefully) with effervescing solution of the sulphate of magnesium. The effervescence conceivably may help to bring to the surface the wound-dirt from the bottom and recesses of the lesion [this writer finds food particles expelled from between the teeth by rinsing with two drams of hydrogen dioxide solution], while the sugar present only could be of benefit in suppurating lesions.

THE INFECTIOUS STATE OF PERTUSSIS

Whooping-cough, E. Feer, of the Clinic for Children at Zurich, maintains (*Med. Klin.*, 1914, p. 837), no longer is infective in the pronounced convulsive stage, so that, consequently, no need exists for excluding children at that period from schools or, in general, from contact with other children. On the other hand, the other young folks of the household exposed to the infection, if exhibiting any sign of catarrh or cough, are suspicious, and must rigorously be kept from the vicinity of individuals liable to become infected.

MINERAL OIL IN INTESTINAL STASIS

While Arbuthnot Lane, through his interesting work on intestinal stasis, has, more than anyone else, stimulated interest in mineral oil when treating intestinal stasis, its present-day use really dates from the publication of a paper by Schmidt in the *Münchener Medizinische Wochenschrift* for 1905; at least, so we are informed by J. E. Cook, in his excellent resumé of this subject published in the March, 1915, number of *The Interstate Medical Journal*.

The special advantage of the mineral oil, according to Lane, is that in these cases of stasis, with sagging of the colon and kinking of the bowel at various points, the oil softens the fecal matter and allows this material to pass more readily through the angulations of the bowel. Unless cases are too far advanced and the anatomic changes severe enough to require surgical intervention, relief is usually obtainable from mineral oil. Mechanical

obstruction is particularly likely to prevail in the more severe and intractable forms of constipation which refuse to yield to ordinary therapeutic measures.

Cook says that certain properties in the oil may be regarded as essential. Thus, it should be colorless, odorless, and as nearly free from petroleum taste as possible; also, it should be nonfluorescent, free from acids, alkalis and other organic impurities. While Russian petroleum can more easily be made to conform to these requirements, it is now known that an American product which contains hydrocarbons of a different series, may also fulfil all the desired conditions; and, as a matter of fact, American oil of very finest quality is now available on the market.

DIAGNOSTIC SIGN OF PERICARDITIS

One sign of pericarditis, according to J. Thomayer (*Casop. Lekar. Cesk.*; cf. *Wien. Med. Woch.*, 1915, p. 46), is elicited as follows: When the patient lies flat on his back and the respiration-sound is diminished under the left clavicle, but grows stronger again upon his resuming the vertical position, then the suspicion of pericarditic exudation is proven correct. In the prone position, the pericardial fluid presses upon the left bronchial tube, and this weakens the respirational sound.

MERCURY-SALVARSAN TREATMENT OF SYPHILIS

Prof. Erich Hoffmann, of Bonn, has published a brochure (Bonn: Fr. Cohen., Price, M. 1.60), in which he gives, solely, his personal experiences with the diagnosis and treatment of syphilis. The outstanding feature of this treatise is, the warm advocacy of the combined mercury and salvarsan therapy, the results of which the author finds greatly superior to those derived from mercury alone. The monograph undoubtedly will prove instructive to anyone versed in the language and engaged in treating luetic patients.

Professor Hoffmann gives preference to the original salvarsan, administering intravenously, the proportions of the fluid being 0.1 Gram salvarsan in 50 Cc. of a 4-10-percent sodium-chloride solution. The single dose is 0.3 to 0.4 Gram of salvarsan; this being repeated from 4 to 6 times at intervals of from five to seven days.

At the same time from 36 to 42 inunctions of mercury are made, of 4 or 5 Grams oint-

ment each. Instead of these, one may give from 12 to 15 injections of mercury salicylate, of 0.1 Gram each, or, 10 to 14 injections of calomel, of 0.05 Gram each.

By means of this course, Hoffmann secures complete freedom from symptoms and negative serologic reaction in not less than 94 percent of primary syphilis. Treatment must be instituted immediately following definite diagnosis; also, the course should be repeated from time to time, under careful control.

SHALL WE OPERATE ON THE DIABETIC?

Some years ago we remember getting into a controversy with a good Texas brother, who insisted that we were giving bad advice when urging amputation of diabetic extremities. He quoted to us the old axiom, that patients suffering from diabetes were poor risks and should *never* be operated upon—better chances following leaving the outcome in nature's hands.

However, we stood our ground, and we have never had reason to change our opinion as to the advisability of resorting to surgical intervention in diabetic cases, when the condition of the patient seemed to warrant it. Now we find further support in a paper, entitled "Diabetes and Surgery," contributed by Dr. Edward H. Risley to *The Boston Medical and Surgical Journal* for January 21, 1915 (p. 90). Doctor Risley makes a careful analysis of the reports of surgical operations upon diabetics, and arrives at the conclusion that a mortality of 20 to 30 percent may be expected in this class of cases. From the data obtained, he declares that most of the major operations have been and can be performed with success upon diabetic patients. When such cases as strangulated hernia, extensive malignant disease and sepsis, which in themselves give a high mortality, are omitted, we may expect a reasonably low death-rate.

The percentage of sugar in the urine is no criterion of the outcome, since fatal results have followed when sugar was temporarily absent, and patients presenting a large amount of sugar have often recovered. However, thorough examination of the urine should be made in every case, especially for the detection of acetone and diacetic acid. Also, the total amount of ammonia should always be estimated, and no operation, except of the most extreme urgency, should be performed if there is one gram of ammonia excreted in 24 hours until this has been

reduced to the normal amount (.759 Gm.). Also, an operation should be postponed should there be acetone and diacetic acid, even if the amount of ammonia is normal; and, finally, much albumin in the urine is a contraindication to operation, and even in small amounts is of bad prognostic import.

ANTISEPTIC VAGINAL IRRIGATIONS IN PREGNANT AND PARTURIENT WOMEN

F. Zweifel, of the Surgical Clinic at Wuerzburg, lays down in the *Medizinische Klinik* (1914, p. 1428) a line of procedure regarding the use of antiseptic vaginal irrigations of pregnant and parturient women.

If the vaginal secretion of such women is normal, any kind of irrigation is entirely superfluous. If pathologic, and childbirth is more than ten days ahead, irrigations with 1-2-percent solution of lactic acid are advisable. Or, if the period of delivery is close at hand or has supervened, then the mechanical cleansing of the vagina should be effected by means of douches with 1 or 2 liters of saline solution, followed by an injection of 100 or 200 Cc. of a 1 : 2000 mercuric-chloride solution.

A NOVEL METHOD OF ADMINISTERING DRUGS

The British medical journals are filled with suggestions for medical and surgical military practice. Here is a clever one, submitted by F. W. Tunncliffe, who is lecturer on therapeutics and practical medicine at King's College Hospital Medical School. It is published in *The Lancet*, February 6, 1915 (p. 274).

Doctor Tunncliffe points out that the conditions obtaining in the trenches make hypodermic or rectal injection exceedingly difficult, the absence of water makes the solution of solid preparations impossible, while the manipulation of tablets and the swallowing of these dose-forms, in the absence of water, make this form of medication an undesirable one. Therefore, Tunncliffe suggests that the drug be mixed in a semisolid aromatic base, and dispensed from collapsible tubes. A given length of jet from the tube should contain a definite quantity of the drug. For instance, an inch could easily be measured against the last joint of the thumb, and for practical purposes could be guessed at accurately enough.

The composition of the base could be varied to suit climatic and other conditions by the addition of glycerin, bismuth, agar-agar, and the like. As one constituent of the base, Doctor Tunncliffe advises the use of some aromatic substance promoting salivation, thus reflexly stimulating swallowing.

So far as he can learn, any drug, crystalloid or otherwise, or any first dressing of wounds, except hydrogen peroxide, can be administered in this form and in adequate concentration. For instance, he has prepared a chlorodyne cream containing up to 30 minims to the inch, and a morphine cream containing up to 2 grains to the inch. The idea is certainly a clever one. Has it applications in civil practice? Who can suggest?

IODINE IN FIRST-AID PACKAGES

As we have already stated in these pages, the war in Europe has often been nicknamed "the iodine war," on account of the general use of this antiseptic in military surgical practice in France and Flanders. We copy from a letter to *The Medical Record* of January 23, 1915, written by Dr. Allan McLane Hamilton, the following item bearing upon this point:

"The use of iodine seems to be most general just at this time, and the French government furnishes each soldier with a small packet containing an ampule with a small brush. An English pharmacist has improved this by supplying an ampule filled with a strong tincture, the friable stem of which ends in a pledget of gauze or cotton. When the wounded man breaks the terminal stem, the bandage is soaked with the contents, and with this he thoroughly swabs the wound. It is said to be far more efficacious than the simple application of gauze, which is certain to favor the retention of any imprisoned bacteria. This is on the theory that in anaerobic wounds the dangerous bacteria of tetanus, gangrene, malignant edema, and other diseases thrive in situations when air is excluded; in fact, after the first application of iodine there is little or no dressing applied. In many cases the wound heals by first intention."

POSTANESTHETIC NAUSEA—A SIMPLE REMEDY FOR ITS RELIEF

Dr. Joseph E. Lumbard is convinced that the prime factor in the production of nausea and vomiting after taking an anesthetic, is the smell. Accordingly he suggests (*Medical*

Record, Dec. 19, 1914, p. 1051) the desirability of substituting some pleasant odor for the offensive smell of the ether during the stage of recovery from the volatile anesthetic. To accomplish this, he has devised a simple expedient, which he has tested in many cases, with perfect success. This consists in rolling up eight or ten thicknesses of gauze into a cylinder about two inches long and a half-inch wide. This is attached to the nose with an adhesive strip, so that one end of the gauze cylinder projects over the nostril. A little perfume is dropped upon this projecting end. If the patient has a mustache, this may be used for the application of the perfume instead of the gauze cylinder.

In the selection of the perfume, the tastes of the patient should be consulted, but in Doctor Lombard's experience, preference has been given to the oil of bitter orange peel, taking care that the preparation was a fresh one.

FLIES, AND MORE FLIES

Out of 100 flies collected in a house, between 90 and 99 percent are the ordinary house-fly (*Musca domestica*), says A. E. Shipley, in an interesting article in *The British Medical Journal* (Oct. 17 and 24, 1914, pp. 662 and 705). However, for a short time at the beginning of summer, during May and June, *Fannia canicularis*, the "lesser house-fly," is said to be more common than the ordinary species. It is an interesting fact that, of the *Fannia canicularis* found indoors, from 70 to 75 percent are males, the females having remained outdoors, where they live and lay their eggs among decaying vegetation and fruit and also in fermenting animal matter and dejecta. Another species of the same genus, *Fannia scalaris*, known as the "latrine-fly," is a much more dangerous insect, since it breeds in human dejecta and thus becomes a very common carrier of typhoid fever.

The blue-bottle fly, or blow-fly, presents two species, namely, *Calliphora erythrocephala* and *Calliphora vomitoria*. Both of these flies deposit their eggs in fresh and in decaying meat, and for this reason they, too, are a source of considerable trouble, especially in army service. Furthermore, they not only lay their eggs in carcass flesh, but in living flesh as well, and their larvae thrive in sores, wounds, and tumors. Occasionally their eggs have been known to be deposited in the nostrils of animals and even human beings. Where maggots are found in wounds, they

are likely to be one or the other of these two varieties.

Another troublesome fly, which follows the camps, is *Lucilia caesar*. This has a predilection for dead meat, especially for stale fish, which the larvae will very soon eat clean to the bone.

Another species which occasionally infests human sores is the *Sarcophaga carnaria*, which may enter houses in search of filth or carrion, upon which to lay its eggs. This fly is viviparous, not producing eggs but live larvae. One female can give birth to 20,000 young.

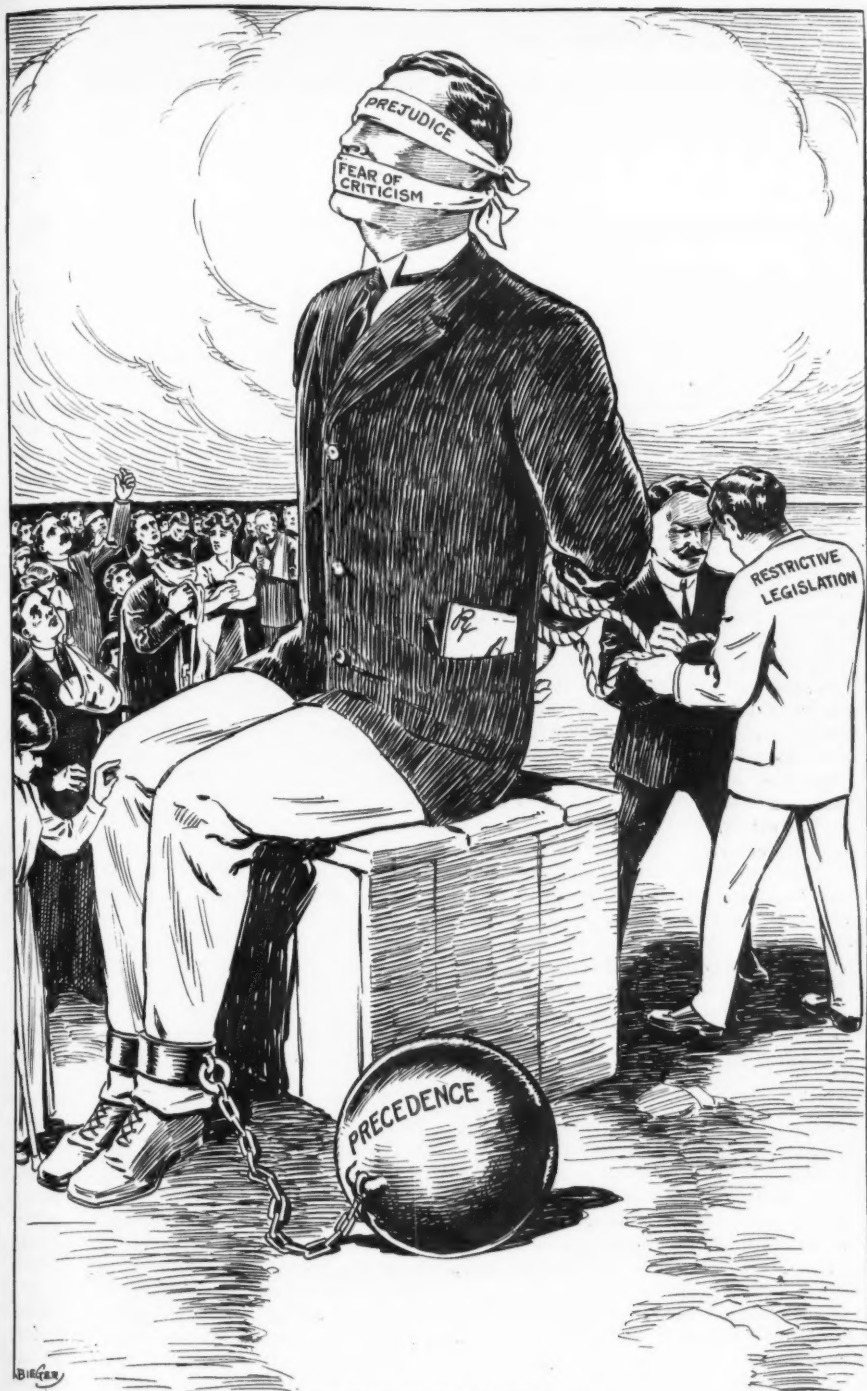
Infantile diarrhea, which so afflicts the poorer quarters of our cities in the summer, is undoubtedly transmitted by the *Musca domestica*; and there is much evidence to show that cholera, which has now become alarmingly prevalent in the eastern seat of the war, is disseminated by the same insect. Anthrax, or wool-sorter's disease, and epidemic cerebrospinal meningitis, are also transmitted by the bite of a fly, the latter by the stomoxys calcitrans.

ON THE EXCRETION OF MORPHINE INTO THE STOMACH AND INTESTINES

Experiments conducted by A. Valenti (*Arch. d. Farm. Sper.*, 1914, p. 248; cf. *Ther. Monatsh.*, July, p. 521) tend to render questionable the notion held since Tauber and Faust's pronouncement, that the greater proportion of morphine is eliminated through the walls of the gastrointestinal tract and passed with the feces; and this irrespective as to whether it was introduced gastroenterally or parenterally.

The experimental animals were dogs, and the alkaloid was injected hypodermically. This is what the author found: When the animal was kept on a diet of meat and bones, about 50 percent or more of the morphine injected could be demonstrated in the intestinal contents. On the other hand, when the food was purely vegetable, invariably only small fractions of the doses were shown to be present.

The author does not venture a definite explanation of this phenomenon; he does suggest, however, that, since the ordinary food of dogs contains certain inorganic substances—such as the phosphate and the carbonate of potassium, which can act as disturbing factors—the method of testing according to Faust and Tauber may be conceived to indicate a larger amount of morphine present than actually is the case.



"PROMETHEUS BOUND"

With all his latent and kinetic powers, so ably expressed in this man's figure, what *might* the modern physician be, if he could but break these shackles?

Miscellaneous Articles

Credits—A Doctor's Problem

THE obligation of a debt is not the factor it used to be. Not so many years ago, credit was looked upon as an accommodation, something to be cared for, scrupulously protected. Men were proud of the fact that they were singled out for favor, that their reputation for integrity was such as to justify credit accommodation. Credit was then the exception, and not the rule, and no greater disgrace could attach to a man than to owe money which he could pay and would not. In this respect he was a marked man, not only in business circles, but in social as well.

All this has been changed with the wonderful expansion in business since the civil war, and the changes undergone in business methods. Today it is the average in general results that counts. With credit extended in every direction, charge-accounts solicited in person, by correspondence, and through advertisements in newspapers and magazines, the personal element is, to a large degree, lost sight of, and profits are calculated on the business after a liberal estimate is made for bad debts. It is the net results merchants are after. If by experiencing some losses they can increase their dividends, they will take the chances.

Meanwhile a delinquent debtor, who formerly was looked upon with more or less suspicion as an undesirable neighbor, is now regarded with high favor if he has other redeeming qualities. Times have changed, and the public is not over-discriminating. In fact, at the present time the question of debt does not enter into a man's appraisal by the general public, for it is more than likely that nothing is known about his debts, so common have credit transactions and consequent defaults become. And, if he is a good fellow, the public doesn't care.

If the question is raised that a man owes money, his friends will advance specious arguments why he should not pay. If it is a surgeon's bill, they will insist that he has been outrageously overcharged; if it is the medical man, "Oh, he makes his money

easy, let him wait for it," is the excuse. Perhaps, indeed, the doctor is charged with a lack of professional skill as the reason why he should not be paid. "I am worse now than when I commenced taking his treatment," is the complaint; or, the accusation is made that the patient is nursed along as a chronic for the purpose of running up a big bill. Any excuse will do for a delinquent. Even the charge of malpractice is sometimes raised for the purpose of discouraging collection.

We do not wish to say that business morals are more corrupt now than they used to be or that men in general have less regard for their honor. But, we will say that in individual cases the corruption is more marked than ever before, and less sense of decency is shown in business transactions; and these facts are unmistakable to every observing business man. It is a change of conditions, of the times, one of the extremes to which we have gone in many other directions.

As to credit transactions, however, we cannot get away from them, if we would. We must accept the conditions imposed upon us by modern business, and the doctor, less than any other man, can expect to receive cash for his services. It is not with him a problem of how to practice medicine for cash, but how to get in the money charged on his books.

Credit is universal—the system cannot be changed—and bad bills are the inevitable accompaniment of credit transactions. While some have solved the problem of minimum loss, others never will. And, apparently, the latter class is willing to go along in the old way, limpingly, satisfied to get in enough money from a good practice to pay current bills, but never getting ahead.

In successfully handling credits, extremes are to be avoided. To approach a debtor timidly in demanding payment, is quite as bad as to be overzealous. In the one case one is likely to lose the bill, while in the other he may lose the patient.

Illustrating the case of a doctor who was admittedly a poor collector, and whose genuine reluctance to present a bill was equaled only by his skill as a practitioner, I recall an evening spent in his office, a few years ago, in a social way. While we were sitting as usual before a grate-fire, enjoying "thirty minutes in Havana," the door opened and a patient entered, to get some advice concerning his young daughter, who was convalescing from a serious illness. Before departing he asked:

"Well, doctor, how much is Helen's bill? I want to pay it." Meanwhile he drew from his pocket a bill-book that contained some money, believe me. It would have bought a team of horses, at least such as the doctor drove at that time, or made a good impression as first payment on an automobile. Imagine my surprise to hear the doctor say:

"Oh, let it go until I get through with your son Bobby."

"No, doctor, I want to pay you now," said the man. "You've earned it. I can't tell you how grateful we feel. A week ago I thought we had lost the girl, but you pulled her through."

The bill-book was open on his knee, the money in sight, yet, the doctor demurred.

"I—I haven't got the bill made out. That's all right. I'll send it to you by mail. I don't need the money," he said.

With a very noticeable expression of disappointment in his face, the patient folded up his bill-book, gave the doctor a fat cigar, lighted a fresh one for himself, said good-night cordially, and went out.

The doctor was a friend of mine, a pal, wherefore I felt myself a privileged character.

"You're a good thing, you are," I said. "What's the matter with you? Don't you know that you hurt that man's feelings? He came here because he couldn't help it. He wanted to do something for you. He was filled with gratitude and the only way he could express it was by paying his bill—and you wouldn't let him. He would have made you a present in addition, had you permitted it."

"I know it, I know it," the doctor said. "Just to show you what a poor collector I am I'll tell you what I did yesterday. I put a bill in my pocket and went down the street to collect it. The debtor is a rich merchant, and as I neared his store I thought I would walk by first and look in. He was at his desk and all alone. I retraced my steps, but when I got to the door I couldn't go in, something seemed to hold me back, and I

came back to the office here without even presenting the bill."

Then, with a far-away look in his eye, the doctor added, "And I needed the money, too."

CHARLES B. POTTER.

Chicago, Ill.

WRONGS OF THE MONEY SIDE OF PRACTICE, AND THE REMEDIES

It seems to me that there are a few things wrong in the practice of medicine, and that one can easily point out, and just as easily find the remedies for them.

For example, there are the Osteopaths, who are gaining ground every day. In our state of Montana, I can name a dozen or more cities where they are doing a big practice and are so well intrenched that the laity consider them doctors as much as they do medical men. They treat everything in the category of disease, many of them openly advertising that they treat all acute diseases—naming a list of the commoner ailments—and adding that obstetrical cases are handled in an aseptic and osteopathic manner. A considerable number are having a larger practice than some of the capable medical men in the same towns. Why is this?

It seems to me that, as a class, the Osteopaths advertise very regularly, and among themselves it is considered all right. In this progressive age, no one can deny that advertising pays, and by this means the Osteopaths have established themselves in the public mind so firmly that the majority of the people, if not employing them regularly, at least resort to them at times. It seems preposterous that a man educated in Osteopathy should undertake to treat all acute disease; but, Doctor Robinson, of New York, considers them fakers pure and simple, and it is but natural that they carry out all the deceptions practiced by fakers. All the while the great medical profession stood idly by and allowed the different state legislatures ignorantly to legalize them. But, why not start something alive that will so open the eyes of the public that they will see the error of their ways.

A really good telegraph-operator decided to enter the doctor-ranks. Looking over the field, he concluded the Chiropractic path the quickest and easiest. He took a three months' mail-course in the science (?) of Chiropractic, came out West, stuck up a "shingle," then valiantly went to work

working the public for a living for himself. Such men as this one naturally are content, and can afford to stay in the business, taking patients from good medical practitioners, for the reason that they never were able to earn more than \$75.00 or at most \$100.00 per month, while the medical man of necessity must have more because the numerous necessary professional expenditures cut into his income, so that, unless he does a good business, he is bound to go back in his profession.

I know a man who started soliciting for an optical house in the East, who picked up enough of the rudiments of refraction to fit an ordinary case fairly well. He had no knowledge of medicine or of disease, but he came out West to work, at that time there being not even an optometry law. He had no scruples against talking people into having spectacles fitted; and he covered different towns and built up quite a reputation as an eye-specialist. A joke? It is the truth. Advertising did it. He has made more money in ten years than any practitioner of medicine in the state, unless it be some of the bigger surgeons.

What show has a good medical man who has spent good money preparing himself to do this work? The public even fear him, because optometrists have so advertised the dangers of using drops in the eyes that the people fall over themselves to give these fakers their good money, thinking the medical man is in business simply to put out their sight.

Then comes Christian Science. How intelligent, educated people can so forget all that is good and right in this world as to take this up is beyond me, and I have only one logical explanation. The average layman thinks the doctors make big money, and easily, and all he has to do is, to buy a few books from the Mother Church and start out treating the sick and ailing, getting good money for it. Then, after he lands a victim, he need not even be bothered about his coming to the office, for, the absent-treatments are given as long as the victim's money is not of the absent sort.

I questioned one practitioner why she did not straighten the crossed eyes of her daughter, and she answered that they were ever so much better now than they used to be. The girl was nineteen, and I suggested that a doctor could straighten them in a few days, while nineteen years of prayers and Baker-Eddy jargon had not helped enough for anyone else to notice the improvement. But

she very faithfully informed me that no limit of time should be placed upon the cures. Wonderful—isn't it?

Now, with these people cutting into the business of our profession, is it any wonder that many of the good men of medicine are merely making a meager income?

Here is the remedy that I would propose. Organize the doctors into an association or get-together club of national scope, in which nothing is required but a legal M. D. diploma. Then, if a large number take this up, the assessments would be quite small. Then a publicity campaign should be organized, of national scope, with branches in each state. Good speakers should be employed to give lectures aimed at educating the public in what to expect from a doctor, and opening their eyes to the impossible things of some of these fakes; doing this in a gentle manner at first. These lectures could be put on in some manner that would attract the public. Either make them sensational, as some revivalists do, or use some other method to draw the largest crowds. It is possible even that a good lecture, if managed properly, could be given in a civic-league course. Also, literature of benefit to the public could be distributed, and every newspaper could be induced to carry articles of interest, and helpful to this campaign.

Of course, the details of such a plan would all be worked out in a manner that would be conducive to best results. There are over 500,000 medical men in this country. Now, suppose 200,000 would pay \$1.00 per month or an even \$10.00 per year. That would be two million dollars per year, divided between the states according to the population. Certainly, a lot of good could be done toward educating the public in these matters that are so vital to us in a business way and so vital to the public in a more serious way.

Let us get busy now. Take a minute of your time and drop me a postal card, saying you are in favor of the plan if at least 100,000 others will join in for one year. This would give an idea whether enough would feel interested in this kind of thing. If you are afraid to obligate yourself, send a dime to help me put this matter before the profession at large. I will do more than my share; or else let THE AMERICAN JOURNAL OF CLINICAL MEDICINE handle this thing. Any manner that will bring this question to a point where something will be done.

Now, all this may be considered a pipe-dream, and maybe it is; but it looks plausible to more than one physician. So, what say

you? Let us wake up and turn the tide that eventually is going to swamp us. Do it now!

F. E. McCANN.

Big Timber, Mont.

[An interesting article, which should set us to thinking. However, I doubt the wisdom of starting new organizations for medical defense. We have the machinery—the organizations—already. The trouble is that we do not use it. We should begin at home, in our own county societies. A campaign of education as suggested by Doctor McCann, is greatly needed.—Ed.]

ANOTHER TRIUMPH FOR EMETINE— A LETTER FROM SOUTH AMERICA

Emetine, which has revolutionized the treatment of amebic dysentery, solved the problem of pyorrhea alveolaris, done wonders in dealing with hemorrhage, has now gained another victory. A disease known here as "*la espundia*," otherwise "tropical sore," a manifestation of Leishmaniasis, has constantly baffled every form of treatment; salvarsan has been used with practically no effect in this trouble. But at last what appears to be a specific has been found in the alkaloid emetine.

About the end of last year (1913) Dr. Carlos Chagas, in the Instituto de Monroe de Rio de Janeiro, gave an account of his investigations of the "Epidemiology of the Amazonian Regions." *Inter alia*, he stated that he had seen cases of this ulceration of more than twenty years' standing, resisting every therapeutic measure, and that they are mostly considered incurable. But now, thanks to the discovery of Dr. Gaspar Vianna, injections of emetine have proved to be an infallible remedy. He stated that he had witnessed most surprising recoveries. Emetine hydrochloride is used, it appears, in a similar manner to its employment in dysentery, and with like speedy and satisfactory results.

This is good news not only to the dwellers of the Amazon basin, but also to many in other tropical lands.

R. J. BURROW.

San Pedro de Buena Vista,
Bolivia, South America.

[Among the readers of CLINICAL MEDICINE there are many who are practicing our profession in tropical countries—in India, China, Korea, the Philippines, Central Africa, and

South and Central America. Many of these should have occasion to treat ailments similar to those described by Doctor Burrow. It is becoming more and more apparent that emetine occupies a place in tropical medicine not inferior to that of quinine, and it may be that its place as a specific is even higher than that of the alkaloid of cinchona bark. Time alone will decide. However, I am convinced that we have but just begun to realize the possibilities of this remarkable alkaloid.

Be sure to read the abstract of Doctor Frazier's article on page 453. As you will see, the doctor believes that emetine is as clearly a specific for typhoid fever as it is for tropical dysentery, tropical sore, and pyorrhea. Is he right, or is he the victim of his own enthusiasm? Isn't it *right* that we should find out, positively, for ourselves?—Ed.]

CAPITAL PUNISHMENT—FROM THE STANDPOINT OF A LIFE PRISONER

[Continued from page 271, April issue]

I happen to know of some ex-convicts. Some of 'em who are out in the world today. One of these happens to own two of the greatest papers in Ohio, both fearlessly independent and progressively for social welfare. He also owns a shoe factory where he employs about 600 people, and he has never had a strike. He is also a director of a couple of banks, and yet I never heard any one in Columbus, Ohio, express a desire that millionaire Bob Wolfe, Colonel Robert L. Wolfe, if you please, be castrated. He'd been a great success if he'd been castrated, eh?

Then up in Detroit is one of the highest salaried men in our commercial world. He draws down \$72,000 a year—\$6000 a month. He was a bookkeeper sent to prison for embezzlement. He made good use of his time, just as I'm trying to do; and when he came out he was a cost accountant and a dandy. After a time he did some work for Henry Ford and did it so well that he was given other work. The wonderful engineering and efficiency systems of the Ford shops are largely due to W. A. Hawkins, commercial engineer and ex-convict! Wonder if he, too, should be castrated?

Pshaw! I could go on naming dozens of such instances—and castration would "prove an ideal penalty," eh? Rubbish!

Now, then, I'll leave your editorial writer alone and come up alongside your craft for awhile and try my batteries. And first, let

me admit in all frankness that three or four years ago I was with you heartily on the vasectomy proposition. In a booklet printed by me three years back I boldly advocated the enactment of a broad law for vasectomizing in Arizona—broader than the Indiana or New Jersey law. To make it stronger, I even offered to be the first to volunteer for the operation.

Today, I should be the first to fight the passage of such a law, save for the incurable insane and certain types of feeble-minded. I should be the first to hire attorneys to combat any action society might take on Arizona convicts. It was nothing of theological influence that brought about this change. I've studied the records of "The Jukes"—have studied the tables prepared by Doctor Goddard of Vineland and many other things—but today I'm at opposite poles to my position of three years ago. I'm mighty proud, too, to have been able to change around, for he who dares not change his views is either a stupid ass or a reactionary doll acting as obstacle in the path of progress.

What brought about this change? A number of things. First, further studies on heredity with alcoholics and neurotics, as given in a number of publications more modern than those which I had originally studied. I do not believe in heredity as a large factor in criminality. When I argued in favor of vasectomy I admitted that same belief, but said the danger was not so much because of any hereditary criminality as it was because the *environment* of the criminal parents was such that children could not as a rule overcome! Environment, rather than heredity, is the larger cause in the matter of parental influence. I've known too many criminals' children to be successes to accuse heredity of being at fault for the weaknesses of others.

In my opinion—and mind, Doctor, I offer this merely as an opinion—the prevailing causes for crime are: *environment* (which includes faulty home and school training); *physical and mental deficiencies* (and about 35 percent are physically defective and about 30 percent mentally deficient, according to Binet tests); *poverty* (and this must be admitted as a social cause, for crime increases with poverty and declines in prosperity); and, finally, *booze*. There are other incidental factors, with perhaps heredity leading these lesser causes.

I am nothing of a Socialist, but I assert that socialism, with the elimination of both booze and poverty, would do away with about 60 percent of all crimes against property; and

elimination of alcohol would cut down more than half of the crimes against person!

It is a damning indictment of our Christian civilization when 95 percent of the 1600 inmates of the Eastern Pennsylvania Prison, and all of the inmates of the Oregon Prison, petition their legislatures to abolish the drink traffic and say that 70 percent of crime is due to drink. It is a reflection on Warden Allen of Joliet when he refused to allow the inmates of his prison similarly to petition the Illinois legislature. It shows his political alignment, and I think you have a pretty strong fight on the booze question in Illinois this year.

Booze doesn't do it all—but booze finds easier working conditions when the drinkers are mentally and physically deficient. Yet, has your editorial friend made any proposition to castrate the booze peddlers and the respectable brewers and distillers? Oh, lawsamassy, no!

But back to vasectomy. Is it not a comparatively useless operation? If a man is operated upon tomorrow and discharged five years from now, another simple little operation restores his generative functions. So what is the good of vasectomizing a man if \$25 puts him back into normal condition again? I'm a little bit afraid that morally it will defeat its object, since it will make the man a moral pervert, a panderer, a debaucher of women and girls who might otherwise remain clean, for the "fear" is removed from their association with such a one. I've made a close study of the work of Doctor Sharp and Doctor Hurty in Indiana and I'm not a bit satisfied with it—most of the reports have come from their side of the fence.

But, what makes more of my antagonism to vasectomy is my own case. Right now—today—after serving four terms, I'm aspiring to become a father. After having gone down and wallowed in filth I am daring to look forward to the day when a clean, pure woman shall share my lot and dare to work with me for the future, for the home and for happiness. If I can come up out of an unspeakable filth and cleanse myself in her love and in the fine friendship you (among others) give me, who shall say any other man is debarred, simply because he has been antisocial?

I'm talking to you as a medical confessor now, but, when I say to you that I have come up from perversion to cleanliness of mind and body; when I tell you that I'm thinking of my wife-to-be as a shrine of love and veneration rather than as a spoil of lust; when I tell you that although we may be

married six months before our home is built, that only in the sacredness of that home will the real nuptials take place; when I think that every uplifting thought I breed in my mind is to be reflected in the character of my children—then, and then only, will you understand the distance I have come and why I say that there is no right, no justice in vasectomy, for what I have done, morally and spiritually at least, every man in prison can do—for I was of the vilest.

All men may not achieve as much as I in mentality, or in work—but, all men can *clean up*, and when they shall become clean, I challenge you to claim any right for vasectomy. I used to sneer at the good people who would quote

"While yet the lamp remains to burn,
The vilest sinner may return."

I'm not a goody-good by a darned sight. I refuse to attend most of the church services here; don't pray, unless living up to some ideals be prayer; not a bit religious in a theological sense; but I've found out the absolute truth in that little couplet I have just quoted.

Kindness made me what I am; encouragement helped me to achieve; friendship, fraternalism, love—and these things can redeem any man. Depressive, repressive prison-systems are the darnedest hells Christians build as monuments to their civilization! The American prison system, as a general thing, with allowances for certain exceptions, has been condemned by every editor of a prison paper in this country, bar none. It is jackass in its aspect and jurassic in its age. But, the environment in which we raise our young and the inefficiency of our common school system is even worse, and all these things have their parts in the making of criminals. It is these things that I want to tell the world some day; and when liberty comes I shall, for I'm pretty near as good a speaker as writer. I owe the man behind walls a duty; I owe society a duty; I owe myself and my fifteen years of prison a duty—a duty to do my share towards making them humane and efficient.

And, when it comes right down to bed-rock, what is a convict but your next-door neighbor? He goes to prison and society draws a line the minute he enters the walls and calls him a convict. He comes out, and he becomes again a part of society. The question for you and all editors, medical editors especially, for I've more faith in them and in business editors than all the

rest—the question for you to solve is, *how is he to come out?* Better or worse than he came in?

Is it not a fact that most prisons are culture tubes for tuberculosis? Culture tubes also for a more dread disease, moral weakness? Does not the continual monotonous program make for a loss of all initiative, invention, independence, moral stamina? How much opportunity is there in our American prison when one of 'em allows its inmates to write and receive *one letter in two months*? Another allows you to write *only* after you've been there six months! Very fine for the father or son or husband? But, I have gone too far and will have perhaps aroused you enough at that to have you get into the game with an enthusiasm. And that is my business of life, bringing your kind of folk over to see my way. I'll do it, too.

Earnestly,
LOUIS VICTOR EYTINGE.

Florence, Arizona.

[A wonderful letter from a brilliant man, who is doing a work that should shame the best of us into lives of greater earnestness and nobler courage. Write him—and write Governor G. W. P. Hunt.—Ed.]

ACTIVE PRINCIPLES

Knowledge is a process of accretion. We attain knowledge by iteration and reiteration of facts. And facts are stubborn things. They must be, else they would not overcome our ingrown reluctance. One would think that a good thing, once demonstrated to be a fact, would be accepted without further mental repugnance. But it is only by iteration and reiteration that one of the good things, the active principles, will become a universally recognized fact; and then internal medicine will progress rapidly to its appointed place in the science and art of exact medicine.

Claude Bernard says: "The first condition for the progress of medicine is, the use of substances having an exact composition, capable of an exact dosage, and with which it is possible to measure the effects produced." And do not the active principles of our remedies meet these requirements? When we prescribe a remedy, we do so, presumably, to obtain a certain specific result. We expect results, and can get them positively only by the use of the active principles.

A drug acts only on those cells or tissues with which it can enter into chemical union,

and must be rendered acceptable to those cells by hydrolysis through the action of body-enzymes. The active principles are substances having an exact composition and are in a form more acceptable to the cells of the body than the usual preparations of the galenics, with their preponderance of inert indigestible matter. This would seem so obvious that the statement of the fact ought to suffice to procure its instant adoption. Yet, we see doctors who depend on tincture of aconite, so often found inert, when aconitine represents the full activity of the drug; and on other like tinctures so frequently made from the dried drug or from a shelf-worn fluid extract.

The argument that during the process of isolation of an active principle from the parent drug the resulting compound may be very different from the active principle in the crude drug is not pertinent, nor is a second argument, that the active principle does not represent the totality of remedial action of the parent drug. It may or it may not. Aconitine does, pilocarpine does not; atropine does, quinine does not represent the therapeutic activity of the crude drug.

If a drug has any remedial action, it depends on the active-principle content, and if it is possible to isolate this principle, that is the part that should consistently be used. The principle should be used because it is definite, exact, pure, easily administered, easily assimilated. Its chemical composition shows its relation to the polypeptids, complex nitrogen compounds resulting from the cleavage of peptones, which are chemical aggregations of various polypeptids, with the elements C, H, O and N in varying proportions.

Tyrosine, an amino acid, found among the products of pancreatic digestion, has a formula of $C_9H_{11}NO_3$; adrenalin, $C_9H_{13}NO_3$; morphine, $C_{17}H_{19}NO_3$; atropine, $C_{17}H_{23}NO_3$; this showing a very close relationship.

The alkaloids are seen to be amino-acid-like compounds, or polypeptids, and are instantly available for assimilation by the various cells of the body, to which they are carried by the blood stream. The cells of the body have a selective affinity for drugs as well as for foods, and the markedly different therapeutic action of drugs depends upon the affinity of this or that type of cell. Most of the active principles find their affinity in the cells of the central nervous system, wherein are contained the vasomotor, cardiac, and respiratory nerve-centers; and upon this affinity depends their great potency.

To see that this selective affinity does account for the diversified action of drugs, study the action of atropine, $C_{17}H_{23}NO_3$, and that of pilocarpine, $C_{11}H_{16}N_2O_2$, the one preventing the excretion of sweat, the other our great diaphoretic; of emetine, $C_{15}H_{22}NO_2$, expectorant, hemostatic, and amebicide; and stovaine, $C_{14}H_{21}NO_3$, a local anesthetic; of aspidospermine, $C_{22}H_{30}N_2O_2$, the remedy for all dyspneic attacks; and strychnine, $C_{21}H_{22}N_2O_2$; and novocaine, $C_{13}H_{20}N_2O_2$, a local anesthetic.

The study of the chemical composition of these and other well-known alkaloids shows that their physiological action is closely connected with their chemical composition and that those of a closely allied chemical composition have similar physiological action. Novocaine, stovaine, and cocaine are very closely related chemically and also physiologically. Scopolin, convallamarin, digitalin, and strophanthin are all cardiac remedies and are chemically similar. They are compounds of C, H and O, and their complexity increases from scopolin to strophanthin, scopolin having the chemical formula $C_{20}H_{26}O_{10}$ and strophanthin, $C_{40}H_{66}O_{10}$. Their physiological action increases correspondingly, scopolin being a weak heart remedy, while strophanthin probably is our greatest (most powerful) heart remedy.

So with the expectorant remedies. Emetine, apomorphine, lobeline, and sanguinarine are analogous chemical compounds, with the following respective formulae: $C_{15}H_{22}NO_2$, $C_{17}H_{17}NO_2$, $C_{18}H_{23}NO_2$, $C_{20}H_{15}NO_4$. Sanguinarine, however, is derived from the papaveraceæ and is closely related to the narcotic drugs, and is almost identical with berberine, the formula of the latter being $C_{30}H_{17}NO_4$. Small doses of either of these drugs increase the appetite and the digestion, strengthen the heart and slow the pulse; and in large doses both cause death through respiratory paralysis. Berberine is a bitter tonic and a contractor of all relaxed tissues. Sanguinarine is one of our most satisfactory respiratory stimulants and is used as an expectorant in the young and the aged.

Quassin and santonin are closely related, are both bitter tonics, both act as vermifuges, quassin acting on threadworms, santonin, on roundworms. The narcotic drugs, morphine, atropine, and hyoscyne, are analogous chemical compounds. Aconitine, veratrine, and gelseminine, our three great remedies for active congestion, are synergistic remedies, and are complex chemical compounds with closely related formulas.

The active principles not only are in a form most acceptable to the cells and tissues of the body, but, what is much more important, they are constant, pure, exact, and definite compounds. We know what we are giving, just how much we are giving, and the dose can be increased or diminished as we may desire, and we can expect, and do get, a constancy of action not to be looked for from the galenical preparations. They have an exact composition, they are capable of exact dosage, and it is possible to measure the effects produced.

Dr. Nathan Rosewater, in *The Cleveland Medical Journal*, says: "He who is skilled in the use of drugs has at his command an agency potent for good, convenient of carriage and easy of administration, definite in quality and length of action, often immediate in results; one requiring no loss of time, no machinery to operate, no expensive attendants, giving the prescriber time to visit others while safely trusting the repetition of the dose to keep up the action; so handy that it may be tritely said, 'the medicine works while the doctor and the patient sleep,' so practical that electricity, physical exercises and manipulations, and even the surgeon's knife, and so on, pale into insignificance beside it."

And that is the role of the internist! It is his important work to remove the cause of the disease after the surgeon has removed the disease; for instance, gallstone-disease. One often sees a case of this disorder recur after complete removal of the gall-bladder, and the patient suffers pain and distress of similar character to the attack for which an operation was performed. An operation for appendicitis does not cure the constipation that caused the attack. Intestinal stasis is not always removed by operation. Habits of long standing still persist in their effects, and are to be remedied both by their reformation and by the indicated treatment.

The internist must use those drugs whose actions can be accurately measured, if he would keep up with the progress we may expect in the art of medicine. This is the age of science, and our remedies must be as scientific as it is possible to make them. They must in truth be "arms of precision," and their specific action should be defined so as to be accurately applied to the cure of disease. Many of our drugs have been thus defined and their indications are well known. Their field of action, however, is not as certainly outlined as it should be. Only by the study of remedies of exact composition and their

specific application to the cure of disease will progress in medicine be made, and the internist take his rightful place.

R. J. SMITH.

Bancroft, Ida.

BANQUET TO DOCTOR JACOBI

A testimonial banquet will be tendered Dr. A. Jacobi by the medical profession, his friends and admirers, under the auspices of the Bronx Hospital and Dispensary, on the occasion of the eighty-fifth anniversary of his birthday, on May 6, at the Hotel Astor.

To give the younger members of the profession an opportunity to participate in the celebration and to come in contact with the venerable nestor of American medicine, the price per plate has been fixed at three dollars.

The medical men on the Committee of Arrangements are: William J. Robinson, chairman; Arpad G. Gerster, Willy Meyer, S. W. Lambert, J. Brettauer, Francis Huber, A. A. Berg, M. Rehling, S. A. Knopf, H. Edwin Lewis, M. Aronson, Otto Schirmer, Max Rosenthal, Henry Heiman, A. L. Goodman, A. Hymanson, Alex. Goldman, A. A. Brill, A. L. Goldwater, H. Schumer, H. J. Epstein.

Communications should be addressed to William J. Robinson, M. D., 12 Mt. Morris Park West. Reservations for seats should be sent to A. L. Goldwater, M. D., treasurer, 141 West 121st Street.

PROSTATIC ATROPHY AND MUMPS

The close connection between the parotid gland and the testes is well known. That an attack of parotitis may result in atrophy of the testes, in aspermia or azoospermia with complete sterility is also well known. Hardly known, however, is the connection between the parotid and prostate, and still less known is the fact that an attack of parotitis may cause atrophy of the prostate without apparent involvement of the testicles and the spermatogenetic function. The sterility may, however, be just as absolute nevertheless, for a normal prostatic secretion is an important constituent of normal seminal fluid, and its absence seems in many instances to be alone responsible for the lack of fertilizing power of the latter.

The writer has had seven cases of partial or complete (so complete that not a vestige of prostatic tissue could be made out) atrophy of the prostate, in which an antecedent parotitis seemed to be the sole etiologic

factor; in some of these cases (five) the atrophy was accompanied by atrophy of the testicles; in two the testicles seemed to be unaffected. These interesting cases will be reported in detail later on. But the object of these lines is to call the attention of the profession to the connection between the parotid and the prostate and to ask them to report either in the pages of your journal or to me directly, any cases of prostatic atrophy in which parotitis was the positive or probable etiologic factor.

The relationship existing between far distant glands, organs and tissues and the genital organs forms a fascinating field of study and research.

WM. J. ROBINSON.

New York City.

MAKE YOUR PREPARATIONS NOW

This year the vacation attractions will take many physicians to the Pacific Coast. First, the American Medical Association meets there in June; second, California has two big fairs—one in San Diego and the other in San Francisco—both of which can be taken in on the way.

Since such a trio of California attractions is but rarely presented, and, inasmuch as there is war in Europe and likely to be for some time to come, there is no better time for American physicians to get acquainted with the possibilities and beauties of this great land of ours than during 1915. Certainly every physician living east of the Alleghany Mountains should direct his travels westward, rather than eastward, when warm weather comes.

ACHIEVEMENTS OF THE MEDICAL PROFESSION

Some years ago, at a meeting of the Kansas City alumni of the University of Michigan, the visitors—those who had attended the great Michigan school, and who now resided in different parts of Oklahoma, Kansas and Missouri—held a banquet at the Coates Hotel. President James B. Angell was the guest of honor, the occasion being the thirty-third anniversary of his presidency of the University. Professor Victor C. Vaughan, dean of the Medical Department, was also present, likewise the dean of the Law Department. About 350 persons sat down in all. Among the nine at the speakers' table was Dr. V. E. Lawrence, author of the article upon typhoid fever which appears in another part

of this number. Doctor Lawrence responded to the toast, "The University, a Pioneer in Advanced Medical Education." The following remarks closed his address:

"The medical profession is unique, in that it is its own discoverer. The old Mosaic law is the foundation of the legal profession. The Bible is the inspiration of theology. But it remained for the medical profession to discover and hew out for itself a profession, without, in the beginning, having a ray of light given it upon anatomy, chemistry, physiology, pathology, surgery or treatment. The achievements of medicine and surgery are unparalleled in human endeavor. No others for a moment compare with them. Silently, and to a large degree unknown to the masses, it has accomplished a work of lasting and incomparable benefit to mankind."

In view of the work that Doctor Lawrence has himself done to advance the cause of medical science, and to help in the conquest of disease, it seems particularly appropriate to reprint these remarks at the present time. The readers of this journal are to be particularly congratulated upon the fact that they have been first to read the records of Doctor Lawrence's work in clinical fields, in bringing to the medical profession a successful method of treating croup. There is no doubt at all in the mind of the writer that he has contributed to the saving of thousands of lives.

ANOTHER GOOD METHOD OF TREATING DYSENTERY

So wonderful has been the success and so marvelous the cures wrought by emetine and ipecac that one is almost led to believe it a crime even to attempt the treatment of dysentery without first having given emetine a trial.

In my student days a large majority of the dysenteric cases persisted from two to three weeks only. As proof of its duration and severity at that time, one aged man asked me to stay all night at his place, saying with tears in his eyes that one doctor lost two cases of dysentery in his family at one time; but he (the doctor) did his duty, for he remained with them night and day for two weeks. He was censuring me for not staying all night to see if the medicine acted properly.

To make a long story short, emetine is not "the whole cheese." Its expensiveness is a heavy burden on the physician, should he have many patients who are unable to pay their bills.

Judging from my experience in Kansas and Oklahoma, it is my candid opinion that epsom salt and aristol, with Dover's powder, will accomplish as much or even more than the much-vaunted emetine.

If this be treason, make the most of it!

Without going into details of etiology, rationale, and so on, suppose you try, in your next case of bloody flux, four heaping table-spoonfuls of epsom salt in an ordinary cupful (8 ounces) of water, a teaspoonful to a table-spoonful of this mixture every hour until the stools are watery and free from blood. You can confidently rely on improvement in from twelve to twenty-four hours, in nine out of ten cases. Then administer at once a large dose of aristol and Dover's powder, or aristol and some astringent, followed by a few smaller doses (with a suitable diet) for a few days.

This has been my treatment for years, and I never make more than two visits, and seldom more than one, to the patient.

One case, occurring about twenty years ago, illustrating the beauty of this treatment, seems almost indelibly stamped on my memory.

The patient was a child, two or three years of age, and it had been passing apparently pure red blood for three days. Afraid to try the magnesium sulphate on account of weakness, three more days were wasted in temporizing with other remedies, but without improvement.

With fear and trembling the "salts" were prepared, as a last resort; in twelve hours the "flux" was a thing of the past, and one large dose of laudanum followed by a few doses of Dover's powder started the child on a rapid convalescence.

I sometimes feel that one might consistently headline an article, "Bloody Flux Made Easy," so confident am I that this form of treatment of dysentery will effect a cure every time.

So long as my results are so invariably favorable, it seems to me radically wrong to change to a treatment which, to say the least, gets no better results.

W. M. HATFIELD.

Mulhall, Okla.

[Doctor Hatfield is a good fighter, and I like his spirit. However, we have no quarrel with him at all. For the average form of dysentery, as seen in our northern states, the magnesium-sulphate treatment gives satisfactory results and gives them quickly. It has been widely used, all over the world—

"from Greenland's icy mountains to India's coral strands"—and in most acute forms of dysentery, including the type caused by the Shiga-Flexner bacillus, it deserves early and careful trial in association with other indicated remedies, as so beautifully described by the Doctor. But it will not cure amebic dysentery, which is essentially chronic in type, with recurring exacerbations, persisting from month to month and year to year, and prior to the introduction of the emetine treatment rarely cured completely.

Many of us northern doctors have never seen a case of true amebic dysentery; the farther south we go the more common it becomes, till along the hot river bottoms and coastal plains it occurs very frequently. It killed many of our soldiers in the Philippines, and in India, China, and tropical countries generally it is a deadly scourge. Many cases of the disease have been brought to us in the north, and once in a while a sporadic one will be found, for which no explanation can be given. It is, therefore, important that every physician should be on the lookout for it. For this reason our advice has been, and is, that physicians should view with suspicion any dysentery showing a tendency to become chronic and refusing to yield to ordinary methods of treatment, such as that described so beautifully by Doctor Hatfield in this paper. *In such cases try the emetine*, no matter where you live. It is expensive, it is true, but far cheaper for the patient than a chronic illness, from which there is no assurance of complete recovery without it. Real specifics, which cure quickly, are the cheapest medicines of all in the long run, no matter if the initial cost is high.

For the average case, as we have already said, Doctor Hatfield's method of treatment is fine, although we should be inclined to disinfect the stools thoroughly with the sulphocarbolates after the brisk and thorough saline purging which he advocates.—ED.]

DETAILS OF TREATMENT OF PYORRHEA—FROM A DENTIST

The emetine-hydrochloride treatment for Riggs' disease seems to have taken the public by storm. Patients are dropping in to see if they have any trouble with their gums, and, if so, to take the treatment; but many have told me that So-and-So's dentist just uses cotton wrapped on a "wire" and mops the gums.

Judging from the literature in the various dental journals for the past year, emetine

seems to have a future, but I feel that its great value to humanity, especially as to the mouth, is going to be cheapened by the suggestion of the use of cotton wrapped around a broach. Two or three patients have dropped in who have been talking to the patients of other dentists, and they did not even have the emetine applied with the syringe.

Permit me to state how I proceed before using emetine. When a patient presents himself for the first time, I insist on a thorough scaling of the teeth, as you advise, then they are polished. Then I give him a few mouthfuls of hydrogen dioxide and glyco-thymoline, half and half, to rinse around for a few moments. I then use my compressed-air atomizer with glyco-thymoline and then place nozzle close between every tooth in the pocket region and cleanse as thoroughly as possible. Then I make cotton rolls and place them around the upper or lower teeth; then I dry out the interdental or gingival spaces with cotton, and then, as you suggest, with the hypodermic syringe with blunted needle, I fill each pocket and hold it in for some moments. Now I feel I have done the very best for my patient. There is not one mouth in a thousand that is benefited by cotton or hypodermic applications unless the mouth has been prepared.

I injected an ampuleful into my arm, and there was no more annoyance than if I had merely pricked my arm with a needle.

One of my patients, a Doctor Richter, in the Bureau of Agriculture, asked me what had been my experience with "bleeders." His son is a very frail child, and when any cut from fall or knife occurs it bleeds for hours, and sometimes he must be sent to the hospital before the hemorrhage is checked. Have you any data on that subject?

One more question: Have you any data as to cures of arthritis deformans or thickening of finger-joints? I have it, unfortunately, in both my hands, especially in the left. I am 54 years old, weigh 155 pounds, stand 5 feet and 6 1-2 inches; I enjoy good health, have not lost an hour from practice through illness for years. From your data, which would be the better form in which to take emetine for this rheumatic trouble, the tablets or the ampules?

EGBERT A. CLARK.

Washington, D. C.

[I suspect that Doctor Clark did not intend for us to print this letter, but it provides a text for a short sermon, so we can not resist the temptation to put it in.

Emetine certainly has a "future," as Doctor Clark says—and to perpetrate an Irish bull, its future is already here: as to the value of this alkaloid in pyorrhea there is no longer reasonable doubt. Yet not every dentist succeeds with it in every case; and "there's a reason" which the Doctor more than hints at. Mere routine treatment, lack of thoroughness, carelessness about details—these inevitably lead to failure. It is by no means enough merely to swab off the gums with a little emetine solution on cotton.

The doctor goes about the matter in the right way. He first "cleans up" the diseased area by scaling, removing necrotic tissue and polishing the roots when they need such intervention. The next thing is to make sure that *in some way* the emetine-hydrochloride solution is brought into contact with all the diseased tissue—that it reaches into every corner of every pocket. There are different ways of accomplishing this, and we shall not undertake to say which one is best. That is something the dentist can solve better than we can. However, perhaps some apparatus, like that of Dunlap, which permits the forcing of the solution in exceedingly fine spray into all the nooks and crannies, acts as well as anything.

Doctor Carmichael, of Milwaukee, a man known to pretty nearly every good dentist, was in to see me the other day, and gave me a good point (one of many) which deserves emphasis. That is, the necessity of "keeping clean" the treated areas after the patient has left the dentist's office. This can be done in various ways, the essential point being to provide against the filling up and fouling of these half-treated and partially cured pyorrheal sacs in the intervals between oral treatment.

The emetine should also be given hypodermically in all severe cases of pyorrhea. Occasionally it may cause considerable irritation, but this is always quite bearable. Inject it warm, as suggested elsewhere and use the ampules.

Emetine is certainly effective in the arrest of hemorrhage, but we should not expect it to prove of permanent value in the treatment of hemophilia, in which there is deficient coagulability of the blood. It should be tried for relief of pressing symptoms, but other remedies should follow, for instance, the lime salts, coagulose, and injections of normal serum.

It is not safe to make promises of cures in cases of arthritis deformans, even when not very pronounced. However, if there is pyorrhea it should be treated and cured by

the use of emetine. Any disease of the tonsil should be eliminated, even by removal of these offending glands. Also, look to the bowel, and have the urine examined for indican and high acidity. These three disease-producing foci—the gums, the tonsils and the bowel—should always be investigated in every chronic joint affection; and *urinary hyperacidity should never be overlooked.*—Ed.]

CURRENT COMMENT BY A COUNTRY DOCTOR

Giving Patient Copy of Prescription.—Is this advisable, or are there reasons for doing it? Neither. Why? Because, in the first place, it leads to self-medication—an essentially dangerous thing. Even the trained practitioner realizes that "the physician who treats himself has a fool for a patient"; and this saying antedates the old aphorism, "Physician, heal thyself." Whenever the writer has been ill, he has placed his case in competent hands; and when his attending physician explained what he was giving, the gentleman has been told, briefly, and as quietly as the irritableness of a sick man permitted, to go ahead and prescribe the indicated remedy and to put it in such form as to preclude its recognition by taste or smell.

Now, if the physician is not capable of giving his own symptoms the proper analysis and treatment, certainly the layman can not. There is altogether too much self-medication. Suppose I visit old Zack Z. tonight (so cold, I trust it will not happen) and find him suffering from pneumonitis. The indicated remedy is gelseminine, which does its work, and tomorrow this is followed by bryonia, for the relief of the pleuritic symptoms then evident. Under the proposed legislation, which, if not suggested in all seriousness, would be utterly ridiculous, I have to give Zack the prescriptions showing the drugs used each time. The results are satisfactory to the patient—consequently, these remedies "will cure pneumonia." So, the next time there is pneumonia in the house, or in one of the neighbor's family, all that will be required is, to get the same medicine and give it as in Zack's case.

Now let us suppose that this new case does not call for the remedies given Zack, but, on the contrary, aconitine and cactoid are indicated. This, of course, presuming that the guesswork, home-made diagnosis is correct. Where was the patient either protected or benefited by my leaving the copies?

This just places the question in the light in which it should be viewed for the patient's benefit. As for the assertion that the public should in this manner be protected from the ignorance of the physician, it is without foundation, in view of the present stringency of practice requirements. A physician can not always wait to have his prescription taken to a drugstore, anyway, and the percentage of errors made by the physician at the bedside or when doing his own dispensing is practically nil. The mere fact that he is dispensing his own remedies will make him doubly careful.

When feasible, the writer gives prescriptions (but never for original containers), using as good Latin as he can command, adding the injunction not to refill or to give copy. This he considers best for the patient as well as for himself. Imagine Friend Zack discriminating between the niceties of the use of digitalis, strophanthus, or cactus, or even as to the inadvisability of using any of them.

If such legislation is proposed in any state, the physicians should wake up and put up an organized howl—pardon me, I should say, a cohesive and logical protest where it will do the most good. The Harrison measure, as it stands, gives the public all the protection needed regarding the handling of habit-forming drugs.

The writer is a pharmacist (by examination) as well as a physician, and a new idea suggests itself. If it is necessary to exercise a certain control over my action as a physician by a pharmacist, why can I not go to see Zack as a duly examined and licensed physician, then go into executive session and appoint myself as the duly licensed and examined druggist to fill the prescription? If not, why not? Will there be a provision to prohibit this in any proposed freak legislation? The very essence is, that the doctor presumably is unsafe as a physician; so, why not just doublehead on the patient and divide what I get out of him between my M. D. pocket and my Ph. G. pocket. It certainly is proper to insist on logical reasoning and to put forth hypothetical questions, if need be, to bring out argument.

Enuresis. *Arbutin.*—There is no class of cases in which relief is more gratefully received and results are more conspicuous than in incontinence of urine, and there is none in which fewer failures need occur, provided a careful analysis of the symptoms as well as of the urine is made. Of course, cases where a gross lesion or neoplasm requires surgical measures are not here alluded to; but, if pro-

nounced paralysis of muscular or nervous tissue governing the function does not exist, it is remarkable what results can be obtained with properly selected remedies. Incidentally, often a washing-out of the bladder can be accomplished by internal treatment, thus avoiding the inconvenience and worry to the patient of the cruder mechanical method. Many times reducing hyperacidity or alkalinity and exhibiting hexamethylenamine, together with copious drinking of distilled water, is sufficient; but, of all drugs, the most frequently useful, in the writer's hands, has been *uva ursi* and, of late, its main active principle, the glucoside arbutin, upon which its virtues in urinary troubles seem to depend.

This is another instance in which the indications of an active principle and of the whole drugs are not identical, as in the latter the large percentage of tannic and gallic acids present as well as other substances often are undesirable. The arbutin is a safe drug and of broader indications than almost any of the group used in similar conditions.

Uva ursi is a good oldtime official remedy, even arbutin having been isolated from it as far back at least as 1853; why it has not received the full recognition merited is a question. Now that arbutin is readily obtainable, it is to be hoped it will attain the place to which it is entitled. Every physician in general practice or in genitourinary work needs an ever reliable, nonirritant, stimulating diuretic, with antiseptic powers added and with the virtue of frequently reducing albumin (not its percentage by reason of dilution, but the actual output in twenty-four hours).

Any doubt about the efficiency of arbutin can easily be settled by means of the test tube. Arbutin often is alone sufficient to overcome urinary incontinence, but by no means always is the indicated remedy. Often Johnnie will stop wetting the bed if he gets a few minute doses of atropine. Also, it may save the boy's grandfather the humiliation of having to dodge into every alley passed when he goes down the street; although the old gentleman very likely requires *thuja* or *thujoid* with it, or alone, and perhaps *verbascum*; it even may be that he needs *rhusoid*. Anyway, both of them can be cured, a good work done, and legitimate boosting earned. For, the old man will tell it, nor will Johnnie's mother forget it. If, however, there is *tenesmus*, urine is scant, desire to urinate is frequent and dribbling present, with a weakened vesical sphincter,

especially in a chronic cystitis, often *cantharidin* will almost immediately relieve if given in minute doses, 1-5000 grain or less, frequently repeated. This remedy seems to be especially valuable in many cases of cystitis of gonorrheal origin.

In incontinence, get as much information as possible from the urine examination as well as from physical examination, not omitting the cystoscope when practicable. Then use the "rationally" indicated remedy; but, never forget that there is much further help to be obtained from many drugs used on account of their "specific" action in certain symptom-groupings. The writer ventures to say that no man who carefully tries out the latter will ever discontinue their use, and that his satisfaction will be such that he will continue to study the ever enlarging utility of drugs. The progress in the internist's work may not be as much heralded and as spectacular as that of the surgeon, but his field is boundless.

Those Five Neglected Hepatic Remedies.—Speaking of the specific symptomology, the writer wishes especially to commend to readers of *CLINICAL MEDICINE* Doctor Ellingwood's article in the January number. The table of the comparative action of the five remedies he treats of could with advantage be framed and studied daily by all those who believe that all cholagoges act alike and that calomel nearly completes the list, at times possibly reinforced with a little *podophyllin*. Ere long such a doctor will carry in his mind the vivid clinical picture of the indications for these five important vegetable hepatic remedies. Were it possible to assert that one remedy had more importance than the others, where they do not meet the same indications, the writer would say that *chionanthus* is the leader of them all; but it would be far better to say that it is the least replaceable and the one with the easiest symptomology. Let anyone skeptical as to the use of drugs according to the specific symptoms think of *chionanthus* first every time he sees a "yellow" patient. Most likely it will be the indicated remedy, and the results will be obtained from the drug or its concentrate, *chionanthoid*.

The Finger of God.—Thus has opium been called, and such it is when properly used; but it may be, also, and many times has been, the entire hand of the devil. Now, that we have the Harrison law in active operation, may the last-named function be denied the sap from the capsule of *papaver somniferum* as much as it is possible for legislation to aid in the accomplishment of this desirable end. Just where the devil has his habitation the

writer leaves to those better versed in dogma than is he. However, if his ever is a "strange face" in that locality pictured by Dante, alluded to by Milton, by many believed to be of immense heat, but in Scandinavian mythology typified as the very reverse—because cold was their economic and physical enemy—no one can greet that strange face with "Hello, doc! you hurried me here by the dope-route." That is, if there can be truth in the realm of the father of lies. Nevertheless, many have been ruined by the abuse of opium and its alkaloids, as well as by other potent drugs.

While not, in the writer's estimation, the main offenders against the moral law, upon which the numbered and enacted statute is or should be based, some of the profession have contributed to the crop of "fiends" so plentifully ripened in this country. Some practitioners have given opium preparations merely because they were narcotics, just because they would relieve pain, and in so doing have, for the most part unintentionally, aided the frightful evil of self-medication. "I shall have to give you a little morphine to ease you." Too often that has been the expression that has caused the patient to go and get a little of the drug, to relieve the pain on his own hook. "Why give a doctor a dollar to give a dose of morphine, when it is the only thing he can give to relieve me, anyway?" Thus has been formed the nucleus of a drug-habit. No use to deny this, for it is true.

Can any man give a stronger reason against freak legislation that would force the physician always to give his patient the name and quantity of the drug administered? However, the physician who realized the danger of the improper use of so potent a double-edged tool as opium or its products usually has used the drug as a narcotic *per se*, only to give temporary relief in trauma or if dealing with neoplasms or other conditions advanced beyond hope of cure. Outside of this, the legitimate use has been where "specific indication" existed. I include employment as aid to anesthesia, in full or part, in the latter.

Few physicians have been so shortsighted, the writer believes, as to give an injection of morphine merely to relieve pain, trusting to nature and luck to remove the cause while sensory functioning was, in whole or part, suspended. The writer believes that most practitioners have been taught that the relief of pain, without first ascertaining its cause, was at least inward and tacit admission of failure to solve the problem of the cause of the pressure, which, mechanically or

by toxemia engendered, directly or reflexly transmitted the danger-signal. If a train-crew found a red light by the track, it would be considered very poor practice simply to remove it and then proceed, without investigating. That would, indeed, be poor procedure. But, it is precisely the same kind of practice to relieve pain and disguise symptoms, without getting at the cause. When the physician gets busy with his little hypodermic, to relieve pain immediately so the patient will not send for the doctor around the corner in order to get quick relief, it verges upon professional cowardice; but it is to be hoped that this is seldom done in these days of scientific medicine and plenteous therapeutic resource.

While on the subject of the opium derivatives, it is impossible for the enthusiastic internist to pass by without saying that this is a wonderful group of remedies, deserving the most exhaustive study of what has already been accomplished and much further investigation. An understanding of the therapeutics of opium and of sulphate of morphine is something, but, as in other drugs having a number of active principles, the therapy of opium is an exhaustive study, and it must ever be remembered that the combination of an alkaloid with different radicles produces a vast difference in physiological action. The hydrobromide of morphine, in its action, is not the sulphate, by any means.

Examination of Urine.—Examination of urine is most properly becoming a routine measure with the modern physician. Even the limited laboratory facilities of the general practitioner often serve to secure data of immense importance in seemingly simple cases, and complete laboratory findings can be obtained at so little trouble and expense by sending specimens to a well-equipped laboratory that, when one fails to do so, he often works injustice to himself as well as to his patients.

The writer makes it a routine, whenever possible, at least to get the specific gravity and to ascertain the reaction and macroscopic appearance, going further if that seems necessary. Continued low specific gravity alone immediately will call our attention to metabolism out of physiological balance, to work undone by the kidneys and thrown upon other organ or organs, not intended for the function, in nature's effort at compensation. Often the balance will be restored by giving the indicated cholagog, and using such simple means as a course of arbutin and eupurpuid.

It is not the intention here to emphasize the fact that many patients would be saved from becoming victims of some one of the manifold disorders grouped as "Bright's" if a timely examination of the urine had been made, with a proper interpretation of the findings. No life-insurance company will accept a risk without a urinary analysis, to be assured of the genuineness of apparent health, and it hardly seems rational for a physician to treat sick people without trying to get information from the same source. Diagnosis often is difficult when all means at hand are taken advantage of, and neglecting this routine will, sooner or later, cause the overlooking of something of importance. Quite recently a case of obstinate middle-ear trouble came under treatment. There was every reason to believe that most excellent local treatment had been given, but search for a cause for stubbornness in the healing-process, including examination of the urine, revealed the existence of diabetes.

Emetine in Pyorrhea.—A dentist recently, telling of his success with emetine in pyorrhea, laid great stress upon the fact that a solution of continuity of tissue of some kind must exist before the entamebas make themselves at home. The mistake of overenthusiasm must be avoided, and all lesions looked to, or an early return of the pyorrhea must be expected. Briefly, expecting all the evils of pyorrhea to be overcome by the single remedy and a lasting and beautiful set of teeth to result is about like expecting rhus tox. to cure rheumatism. Either remedy is precise in its results, and the indications for emetine are many; still, the man who expects a therapeutic agent to pass its limitations will soon make a failure and decry his tools.

Tulane Open to Women.—Announcement is made that Tulane University will now give medical education to both sexes. Why this was not done before is not clearly apparent to many. It does not seem that there ever has been sufficient reason to compel a daughter of the South to go far away for a medical education, should she desire one. The only objection I ever had to a woman doctor was, when, long years ago, a most worthy and lovable aunt took me to such a one. I preferred a man most emphatically. She was, of a truth, a dear old aunt, and that pioneer woman physician was a dear old lady, and, I am sure, a capable physician, too. However, the incident so impressed me that the memory of my boyish prejudice is one of the incidents of childhood, ineffaceably passing through the years. Often have I

thought that children of the opposite sex may have the same horror, at times, of going to a man. Unconsciously the sweet old lady acted a bit as a preceptor to a future physician, for her tact in handling that little boy patient has often been remembered when he was discharging the difficult task of putting some little girl patient at her ease.

A. L. NOURSE.

Sawyerville, Ala.

INJECTION TREATMENT OF HEMORRHOIDS

CLINICAL MEDICINE, for April, just to hand. On page 352, "Injection Treatment of Hemorrhoids," you give a recipe for an injection fluid:

Carbolic-acid crystals.....	drs. 7
Glycerin.....	dr. 1
Cocaine hydrochloride.....	grs. 20

Do you *really* mean seven drams of carbolic acid in one dram of glycerin? Or, do you mean drs. 7 of phenol to oz. 1 of glycerin? In all the injection fluids I have ever seen, from 5 to 10 percent is the usual quantity recommended.

Albright, in his special work on rectal diseases, uses a 50-percent phenol and glycerin solution, but he has special suppositories prepared to control pain for the first twenty-four hours. I am wondering if a printer's error has not gotten into the prescription, and if some one should use this powerful remedy, if dire disaster is not likely to follow its use? For three years I have done considerable genitourinary and rectal work, but have never found it necessary so far to use such dangerous drugs. But I surely would like to know if the above prescription is correct, and if it has been used successfully?

J. H. COLLINS.

Peoria, Ill.

[The prescription formula as it stands is correct. The idea is to inject the hemorrhoids with straight carbolic acid, but, of course, sufficient glycerin has to be added to abstract the water of crystallization and make the acid liquid. There is no need to fear any dire disaster from this formula; only two or three drops are injected into the tumor. In fact, the stronger the carbolic acid, the safer the procedure becomes, for practically pure carbolic acid immediately and unfailingly coagulates the albumin of the tissues, so that there is no absorption and the hemorrhoid itself quickly sloughs off. We have

another paper on this topic, from another good doctor, and this will appear next month. —Ed.]

ANENT THE PATENT-MEDICINE PEDDLERS

There is now pending in the Illinois legislature a bill which should have the approval and endorsement of every doctor in this state. This bill forbids the indiscriminate distribution of samples of dangerous drugs to the laity, and will prevent the throwing of these samples into people's yards and hallways, and giving them to school children. It will also prohibit the sale of powerful medicinal agents in patent-medicine form by traveling wagon-men or peddlers.

The druggists of Illinois are behind this bill, and it should also be endorsed by the medical profession. If you live in Illinois, and approve of this bill (as you should), let us suggest that you make your wishes known to your representatives in the legislature. Urge its passage.

IMMUNITY IN DIPHTHERIA

An article on diphtheria in a recent number of *CLINICAL MEDICINE*, has stirred me up to send you the results of certain observations of mine during the last ten years or so. My conclusions are that diphtheria is not particularly contagious during the first stage. Also, that after the administration of antitoxin, the child who receives it is no longer a menace to other children, even if cultures in the throat are positive. This may not hold if the progress of the disease is not checked by the antitoxin, but I am positive it holds in general. So convinced am I of its truth that I no longer give preventive doses of antitoxin to other children in the patient's family, and I have never seen a second case develop if the first was taken in time. This conclusion, if true, would mean considerable in the matter of quarantine, and should be tested out thoroughly, so I am passing it on to be tried out by our friends of the "family."

During the last few years my practice has given me quite a number of cases of diphtheria among the Portuguese, among whom large families are the rule and isolation impossible. Under these conditions, it seems to me the theory has had ample opportunity for testing, but of course one man's conclusions are insufficient.

I am, of course, familiar with the Schick test; but, to my mind, the theory of personal

immunity is entirely insufficient to account for the results I have observed. In all probability, I have treated, in my practice, since I began my observations, one hundred or more cases. I have always given antitoxin to every suspicious case at once, and obtained the state report on the case later, sending the tube for culture on the day that the antitoxin was administered. Although in practically every case other children were exposed to the infection before the antitoxin was given, and in most of the cases were in communication with the patient afterwards, I have never seen a second case develop, except in a very few instances where both could be traced to the same carrier, who had the disease in a mild form.

As I served in the Boston City Hospital before the advent of antitoxin, and know how the disease went through whole families, I think I am in position to appreciate the difference.

The great point, in my estimation, is to treat the cases early. At the early period it is certainly not impossible that the bacilli may not have arrived at that point of development where they are likely to pass from the patient to another, and if the antitoxin is then given, the possibility of such communication is prevented. The antitoxin certainly prevents infection to a large extent. Whether it is absolute, as I suspect, or whether I have had an unusual series of cases, is, of course, for many observers to determine. Just try it out. Give no immunizing doses to other children in the family, and see if I am not right. With a mortality of nothing, in nearly every case treated with antitoxin, you are taking no particular risk, and it would mean a great deal if the case be proven. On the same theory, antitoxin given to carriers would render them immune to others.

L. C. JONES.

Falmouth, Mass.

[Our correspondent argues a good case, and far be it from us to deny that there may be a good deal in his position. It must be borne in mind, however, that the Schick test, concerning which there are three capital articles in the *Journal of the American Medical Association* of April 10, has shown that about 65 percent of persons are naturally immune from diphtheria anyway, or, to state it the other way around, only about 35 percent are susceptible to it, i. e., about one-third. This would doubtless account for the primary case or cases that occur in ordinary families; that is to say, in most families the person or per-

sons who are primarily attacked represent the 35 percent of susceptible individuals in that family.

We do not care to take the responsibility of recommending our readers to try Doctor Jones's proposition out, by withholding protective inoculation. But, inasmuch as he is carrying out this policy anyway, there is a very simple method by which he can confirm his own theory, namely, by subjecting all his exposed persons to the Schick test. If they show a fairly equal proportion of reactions and non-reactions to the test, and yet display, alike, immunity to attack under his policy of withholding inoculation, then, after a sufficient number of observations have been made in this way, his theory would be strengthened almost to the point of demonstration. Meanwhile, keep on using diphtheria antitoxin whenever susceptible persons are exposed to this disease.—Ed.]

COMMENTS ON OUR MARCH EDITORIALS

The editorial, "Doers and Ditchers," is fine, but there is a reason for not accepting all the work of the doers. There are so many doers that do injurious things. If the ditchers had only the benevolent and useful doers to contend with, all would be well; but, to accept all the schemes brought forward would be disastrous. Yes, the ditcher has important uses, and a great many heads need whacking that have never been struck.

"Narcotic Legislation." This, like other classes of legislation, is imperfect, but possibly will result in good. At present the "fiends" are a troublesome lot. They are, as a rule, "colossal liars," and will get the doctor into trouble if he yields to their morbid appetite. Say *No* when asked for narcotics, and stick to it.

This brings us to the editorial on "The Educative Value of Pain," on which I advise as follows: Find the cause of pain (if you can) before you prescribe for it. Do not narcotize a patient with lockedup, loaded bowels, or with loaded bladder, or congested lungs or kidneys. Let narcotics come in only when needed. If labor-pains are causing unnecessary pain, relieve them, but, if you are not careful, you will prolong the labor and the pain, too, by the use of narcotics.

Say! Mr. Editor, why do you worry so much about the old doctor? We have several of these here in town and throughout the country, and they do not seem to worry

over the success of the younger generation. We have one or two younger men forging to the front, but not because of superior skill or laboratory knowledge, but this because of superiority, energy, and effort. They hustle. If you could hear them in our society meetings, you could not possibly attribute their success to superior ability or anything new they know that the older generation has not learned. Don't worry about the "old man." He is all right. If you desire to aid any one, preach conservatism to the young men.

Now, a word or two more in regard to "Doers and Ditchers." It is the plunger, such as Friedmann, that brings reproach upon the profession. That fellow borrowed a suggestion from me and set the world on fire, so to speak, with his turtle-serum fake. I wrote a burlesque, in the '90s, on "Frog and Turtle Serum," and said that the turtle was a combination of all kinds of flesh, and that turtle serum would cure all manner of disease. I also said that there was a Doctor Rush on Brewers Lake, this country, who was manufacturing turtle and frog serum, and that the latter was a sure cure for "lost manhood." Friedmann, seeing the article in *The J. A. M. A.*, began to do something, and your readers know the result. I tried to ditch them early in the action, saying that I should prosecute anyone who borrowed my thunder, but he could not be ditched. He was a persistent doer! And were it not for the persistent ditcher, the whole thing would go to the demnition bowwows.

W. P. HOWLE.

Charleston, Mo.

THERAPEUTIC SHORTCUTS

I always had my doubts as to whether anything I had said through the medical journals had been of any advantage to anyone, until last summer, when I was touring the West and Northwest, where I ran upon a doctor near Portland, Oregon, who had read a little medical article of mine, stating how I had cured all my cases of ivy poisoning. As soon as he learned who I was, he called my attention to the article and said it had been just the thing for him, as he was stationed at a lumber-camp where such cases were common. I asked him what success he had had with it, and he replied that it did the work every time and in short order.

As some readers of this may not have seen the former article, I will state here how I do it. A saturated solution of sodium salicylate and fluid hydrastis in water, applied

locally, will cure speedily, pleasantly, and cheaply.

Skin cancers or skin sores of practically all kinds will heal up and get well in short order when mopped frequently with tincture of iodine and then covered with sodium salicylate. Clean the sore, then make the application daily till it heals; the length of time required to cure such sore depends on the size and extent of tissue involved.

Mop out old chronic sore throats with tincture of iodine, and you will be surprised how speedily they will get well. This treatment does not cause pain or discomfort of any kind. It will hurt less and do more good than all the silver preparations ever invented.

I give my gonorrhea patients an elixir of saw palmetto berries, sandalwood and corn-silk, and wash out the urethra with a solution of sodium salicylate and fluid hydrastis in water, and they soon get well. Yes, I mean, well. And this does not cause pain. I make it a point to use such treatment in all kinds of cases, and it will not cause pain.

M. E. JOHNSON.

Pittsburg, Kans.

DOCTOR, ANOTHER SIDE—THINK IT OVER

It was midnight, the fast express due in Chicago at 3 a. m. plunged through the inky darkness with a muffled rumble and spitting huge clouds of red cinders. The two seats in front of me were occupied by four men. Two I judged by their conversation and their luggage were traveling salesmen. The third, a young man of possibly thirty, slender in build and with the face of a thinker, I found later was a contractor. The last one of the quartette, a quiet, dignified-looking gentleman rounding out the half-century mark, with black hair, gray temporals and closely cropped mustache, presented the mien of a successful business man.

I was leaning back in my seat, drowsily drumming my fingers on the car-window, when my ear caught the words "sterilization of degenerates." Being a physician, I naturally was interested and, so, followed closely the drift of the conversation.

"I'll tell you," said one of the salesmen, "I firmly believe that, if every man who committed rape should be castrated, it would be a mighty wholesome example for other beasts of the same species, and besides would stop the breeding of such animals. A man, be he ever so dense and depraved, is mighty par-

ticular to retain in good shape that anatomical aspect as long as possible."

"I do not believe it would be best or necessary to castrate so far as limiting the reproduction of defectives is concerned," spoke up the young contractor. "From what I can learn and from what physician friends tell me, I think the best thing to do is, to cut the spermatic cords. That operation has been done many times in the last few years, and of course that makes it impossible for the one operated upon to impregnate anyone. That I believe would be a great step forward. It would each year do away with millions of defectives of all classes that now are populating our prisons, hospitals, and homes for the feeble-minded. The philosophy of the survival of the fittest is all right; but, as Nietzsche says, the will to live is the *vis a tergo*, and I believe this desire is about as strong in one class as another. If left to themselves, it would be several milleniums before the unfit would run themselves out. I'm for the scientific shortcut."

"Gentlemen," said the man with the gray temples, who had been listening attentively, "you do not know me, of course, probably never saw me before, and may never again; but that doesn't matter. I want to give you a fragment of personal experience. This idea of sterilization may be just, and it may not. If laws were passed and enforced, compelling people to submit to surgery, even if it be the so-called defectives, for the purpose of rendering them sterile, I am afraid the state would be assuming a very grave responsibility."

There was a slight pause; then he continued:

"Besides, it is getting dangerously close to becoming a fad just now to remove a woman's ovaries every time she has a pain in those regions. The ovaries, I think, exert about the same influence in females as do the testicles in the male. *This I know*, from very bitter experience. *When these parts are taken from a woman, the real woman goes with them.*"

The man sat for a few minutes gazing through the car-window into the darkness. An expression of utter hopelessness flickered over his face and was reflected, it seemed to me, in the faces of his companions. I felt a quick sympathy going out to him and knew instinctively that here was a man who had built great castles, built them high, only to see them crumble and fall in ruins about him.

"Well," he said at last, "I must tell you. I have run my race, but you, gentlemen, I judge, have not; and what I am going to tell

you now may, at some time, be of service to you.

"I married the best, the only little woman in all the world—so, at least, it seemed to me. We married rather late in life, some would say. She was thirty-five and I was forty. Our home life was all that one could wish. We were sweethearts, husband and wife, pals, and partners in business. I made good money and my wife was a genius of efficiency. On leaving my office of an evening, I always took the first straight-across-town car for home, sure of a haven of rest from the cares of the day and of a cheerful greeting and a big hug from my wife. We had spun many plans for the future—a house full of lively boys and girls; and, of course, they would get a fine education. Each was to have a special corner in the big home we were to build—a country home with plenty of big, broad, cool porches and great warm fireplaces, and green velvet lawns threaded with gravel walks and driveways, and all that. In short, we had planned ever so many things for our big family that was to be.

"Then, one day, I went home as usual—but no wife greeted me at the door. I felt a great, terrible tug inside of me. An awful fear gripped me and I could hardly muster courage to enter the house. Instinctively I felt that some awful catastrophe was about to overtake us. Hastening to my wife's room, I found her lying on the big divan, all drawn up, her knees almost under her chin, face pinched and blue. Taking hold of her hands, I found them cold and clammy.

"What on earth? I managed to exclaim.

"I don't know, Bob," she answered, with a feeble effort at a smile. "I am in dreadful pain and I believe you will have to call a physician."

"I rushed to the 'phone and called a doctor whom I knew by reputation. He was there in a few minutes, asked her many questions, examined her, and finally declared that she must be taken to the hospital at once.

"Doctor, what is the cause of all this pain and what must you do?" I asked, and he replied that it might be one of several things—the appendix, an ovary or perhaps pregnancy that had taken place abnormally.

"I was all at sea. My wife had always been the picture of health, never had an ache or a pain. I only could tell the doctor to go ahead and do for her what he should. All night I hovered about my wife's room in the hospital. Nurses, dozens of them, came and went, but said nothing to me. Doctors, young and old, passed in the halls, talking in

an undertone as they melted from sight into the labyrinth of rooms. Elevators constantly and noiselessly glided up and down. In the room to my right a woman moaned a low never-ending moan; a little farther down the hall a man cried and begged for relief from pain. 'I wish the doctor would hurry and see my patient; he needs a hypo,' I heard a passing nurse say. Across the hall a little baby whimpered. From other rooms came expressions of agony.

"Gentlemen, if you have never been in a hospital with sick there of your own, you cannot imagine the strain upon your nerves. But this is forced upon your attention: The whole human machinery is absolutely indifferent to your suffering. It is a giant money-making mechanism. If these institutions existed for the care of the sick of their own personnel only, you would see an entirely different state of affairs.

"Well, presently my doctor came to me and said that it would be necessary to make an exploratory operation, to determine what was the matter. He said that rest in bed and the ice-bag had done no good, and, consequently, nothing but surgery was left.

"Do you think she will die, doctor?" I asked.

"I think not," he replied, 'but, of course, there always is some element of risk involved.' I could say no more. I was dumb with fear.

"Two nurses came in, lifted my wife upon one of those rubber-wheeled carriers, rolled her to a waiting elevator, motioned me to enter, and up we shot. At the very top, it seemed to me, we stopped. They pushed the cart with its precious load into the operating-room—all alone into the arena of death, I thought; but I could give her no aid.

"You wait here," said one of the nurses, 'and we will let you know how she gets along.' There was no more sympathy or human feeling in that woman's voice or looks than if they merely had run my automobile into that sinister room to look it over. Still, that particular brand of human nature we encounter all around and about us.

"Ages after my little wife had entered that operating-room a nurse hurried to me and said the doctor considered it best to remove the appendix and the right ovary, and should he go ahead?

"For God's sake, tell him to do what is right, I only can depend upon him," I told her.

"I waited and waited, every nerve ready to snap. It took so long, I expected every minute for the nurse to come again with some terrible news. Then, at last, they wheeled

her out again, moaning as I heard that other woman moan downstairs. She called for me over and over again, but was too near dead to recognize me. Soon a dreadful nausea and vomiting twisted her body from head to foot. I will not attempt to describe my feelings—I can not—I can not.

"Well, to make a long story short, the doctor told me that when he examined the ovaries the right one looked suspicious and he thought best to remove it. The appendix was not affected, but in an operation of that kind they always removed it, for fear of more trouble—also in the future. In three weeks I had my wife back home. She was gaining strength, and I had begun to feel encouraged; but, in six weeks to the day, pain set in in her left side. My physician said it was just one of those peculiar cases where the pain was about the only thing one could find, that he couldn't give the exact cause. Consultation was held, then once more to the hospital. 'Doctor,' I said, 'isn't there any way other than the knife? I have heard there are other lines of treatment.'

"Such treatment is not safe, it is experimental; those men are dreamers,' was the doctor's comment. That settled it. The terrible ordeal again. Back home; well, with the exception of vague pains. I never realized what it meant, even then. I knew we could not have children now, but I thought we could go on loving just the same. She would still be my inspiration—I her oracle. We could get a little one from the Home and live, after all.

"Well, I am going home tonight. I have been away for over a month. Can you, gentlemen, imagine my reception when I get there? I shall let myself in with my night-key, which I always carry now, hang my coat and hat on the hall-tree, walk into the room where she used to sit on my lap, arms around my neck, and build air-castles with me in the flickering flames of the fireplace. Yes, there is the very same chair, the same fireplace, but she, she will be in bed. She has grown quite stout—sixty pounds more; her clothes will be scattered here and there over the room, a basket with some half-eaten apples and peelings on the table, the curtains all drawn, and the room full of vague odors, a *Cosmopolitan Magazine* lying open, face down, on the floor by her bed. My step awakens her.

"Well, hello! how did you happen to get home so soon? Have a successful trip? Hurry now and get to bed, and don't make any noise, for I am sleepy and have had a

headache all day!" No greetings as of old; no warmth; no caresses; no joy at my return. You know what I mean, friends—all the little things that kindle ambition and make red blood course through your veins.

"The fire has burned to ashes, gentlemen. God knows I fought the realization of it; I was heart-broken, I was in the deepest pit of despair. I tried other women, but there was no satisfaction. Whisky numbed my pain for awhile, but I came out only to suffer more. Yes, her health is fair now. The doctor never told me what the trouble was. He says he doesn't think she will ever be troubled any more."

The whistle blew a shrill blast, and, with a hissing of steam and compressed air and the grinding of brakes, the train came to a standstill.

"Well, we have arrived," said the contractor.

"Yes, this is the end of the journey," he said wearily, as he hurried to the exit.

"Poor devil," said the salesman, as the other dropped from the train.

LEON E. WHETSELL.

Bloomington, Ind.

[Although told in story form, Doctor Whetsell assures us that the incident related is absolutely true. Read this in connection with the letter by Mr. Eyttinge on page 463.—ED.]

DOCTOR BOWERS AND THE "PRINCE OF WEEDS"

Concerning the article by Doctor Bowers in *MARCH CLINICAL MEDICINE*, I wish to say that, if the Doctor means it as a boost for the Prince of Weeds, he has done well; but, very badly, if he really intended to help us uproot this weed and turn it up to the sun, since it is evident that he is no reformer. It is significant that what he says in favor of tobacco he either vouches for or leaves undoubted; but, what he says against it, he accounts for by his frequent interpolation of "so they say." The fact is, that only the smokers are anxious either to write or print such articles without comment, and only the slaves of this prince are ever rushing to defend this slavery either by honest effort or ridicule.

Doctor Bowers says: "Whether we are greatly to be injured or mildly benefited depends upon who is boss." Now, doctor, is there really any doubt as to who will be boss in most cases, or, moreover, to quote you

again, as to who "holds the whiphand"? Again he says: "If it helps, it is like anything else that is helpful, worth all it costs."

A good deal hangs on this "if." If a thing that "helps" helps others by example to a habit they can ill afford—helps small boys to degradation—is it "worth all it costs"?

It is a false and dangerous philosophy that says that anything that helps is worth all it costs; and certainly no argument that tobacco helps anyone can be substantiated in the ultimate, at least no one not using it ever misses it or needs this kind of "help." It is safe to assert that tobacco has no therapeutic properties that are not better supplanted and supplied by other agencies that have no "string" attached to them.

As to the benefits of smoking, all smokes are an evil and a nuisance, and we are as much justified in getting rid of tobacco-smoke as of a whole lot of other smokes we are making a hue and cry over.

A. P. REED.

Dorchester, Mass.

THE PLAGUE OF LICE

In an article in *CLINICAL MEDICINE*, Professor Lowry complains of the plague of lice in the army. Professor, you should say graybacks; and the only way to keep away from them is, to stay at home. You ask for experience. Here you get it.

During our late "uncivil" war, we did not stop for such small bugs—they thrived on the corporal and the general, no less than on the private. My captain, one of the fighting McCooks, had some experience with the graybacks. He told us to hang our dog-hair blankets in the sun every clear day. In my mess of 12 we kept clean and neat. Before Christmas, our company was sent up the Ohio River, to load rocks for the levee in front of Fort Defiance, near Cairo, Illinois. We had a fine time, nice weather, and were in no danger in the grand old state of Illinois.

One day I had been out hunting, and on my return some of the boys in the mess accused me of being dirty, filthy, and lousy. Of course, there was a show of fight at once. One of the boys bet me a dollar. I put up. I lost. I was all that they accused me of. Then what a laugh! We caught the captain and lieutenants all in the same boat; in fact, the whole company. Returning to Cairo, we went into winter-sheds, and then we did have a time. We got our "seed" on the steamer Rob Roy, used as a ferry boat and for making short trips. February 6 we were in

Fort Henry, Tennessee. On the 16th, we entered Fort Donelson and lived in the log huts used by the "Johnnies." Then we had a mixed breed. Soon my company was sent to Clarksville, Tennessee. I had a room in the court-house for my quarters.

One wet day some of the boys wanted a social game of cards in my room. It was not long until one of the boys called out, "Lice." I locked the door and began a search. A low-down playoff brought his blanket into my room. It could nearly walk. Arriving at Shiloh, this man and two others were so dirty, no one would allow them in their tents. I was detailed to clean them up. I called for new uniforms and blankets for them. I also got a large kettle and three pounds of soap. With the aid of help, they had a haircut, then they were plunged into the river and scrubbed clean. That lesson was enough for nearly two years for two of them. We scrubbed them in winter outdoors, and a shake of my head and telling them to clean up was enough. The other fellow needed no other lesson, except to be told, "If you want to stay in my mess, clean up." He still thanks me for making him a clean man.

Soldiers are not furnished looking-glasses or bath-towels; in fact, Father Abe could not furnish clothes at times. Let the Professor pull off his clothes and skirmish, boil them and pull them on to dry. I have seen the generals skirmishing. No doubt, while in camp the soldiers can keep clean in time of peace. The old "unniguintum" was our great standby; close-cropped hair and a fine comb ("Jerusalem overtaker") kept my head clean.

Measles, meningitis, and lice will follow any army. A soldier cannot have a clean shirt every day, because he may own but one. The hospital-bedding can be cleaned by the steam sterilizers. O, well, what a little thing for the Professor to complain of. Over here, the boys in gray shot at you, and hit, also.

T. C. MURPHY.

Pass Christian, Miss.

CURING NARCOTIC ADDICTIONS: A CRITICISM

In the April issue of *CLINICAL MEDICINE*, I read with interest an article, "Drug Habits and How to Treat Them," by Dr. William F. Waugh. After years of experience, I am of a different opinion from Doctor Waugh in regard to treatment and its after-effects on people who for years have been addicted to the use of narcotics. My relations with this

class of unfortunates lead me to the belief that by an exercise of will power, either as the result of a "hunch" or shock of some kind, alcoholics are able to stop the habit; but I never have seen or heard of a narcotic addict who was able to secure permanent relief without proper medical assistance.

I have known hundreds of people who have reduced from a large daily dosage of the narcotic to a fraction of a grain, and eventually have stopped temporarily the use of it entirely. This is not a permanent result, however, since eventually the craving drives these people back to the habit. Successful treatment of drug addiction does not consist in merely separating the user from the drug itself, which any one can do under the influence of scopolamine or hyoscine with some alkaloid of morphine, together with proper elimination; but it must include that essential thing, which makes the treatment effective and insures permanent results, *the obliteration of the craving*. Withdrawal alone does not do this; suitable corrective medication is a necessity.

Neither do I believe in the statement that the general practitioner can treat these addictions successfully. There are two conditions which are absolutely essential for success in the management of these patients. One is suitable medication; the other, practically as important, is the control of the patient. Physicians who specialize in any department of medicine secure better results therein than the general practitioner. I feel that great injustice is done to a man who is a victim of the drug habit, when he presents himself to his family physician and confides in him, if the general practitioner tries to treat the case, instead of referring him to some one who is specializing in that department of medicine, and who devotes all his time to its study.

I find that the treatment of drug addiction is one of great responsibility and demands mature professional judgment and constant attention in order to conduct the case successfully through the various phases of the treatment until the stage of convalescence is reached, to establish which, in our experience, requires from four to six weeks, at the end of which time the man is approximately restored to his normal condition, providing he is not neurotic or syphilitic, and has to contend only with drug influences.

That any individual may have given a certain treatment several thousand times, does not prove that the treatment is scientific or dependable. To demonstrate the value of a

cure, many hundreds of cases must be treated and an unprejudiced follow-up system installed to ascertain the permanency of the results observed. Moreover, the safety of the system must be demonstrated. Any treatment that is attended with increased mortality, above a certain number of grains of drug in any given addiction, is dangerous and its usefulness doubtful.

The Lambert-Towns treatment is specifically correct for the treatment of drug addiction; is adaptable, under mature professional judgment, to every type of case; is certain in its results if the specified therapeutic results are obtained as the case progresses; and carries no probability of demise or dementia among persons treated.

To the professional man who wants definite results in the treatment of drug addiction, with but slight discomfort, the Lambert-Towns method offers the surest way to secure these results, with less possibility of complication or failure than any other known treatment.

WM. K. Mc LAUGHLIN.

2715 S. Michigan Ave., Chicago, Ill.

[We agree with Dr. McLaughlin that it pays to place these morphine addicts in special institutions whenever possible. In the long run money will be saved by the patient, who is also much more likely to be cured when under close expert supervision.—Ed.]

SUPPORT THESE BILLS

The Chicago Medical Society has endorsed two important bills now pending in the Illinois State Legislature, namely House Bill 213, providing a more efficient means of registering births and deaths, and House Bill 477, which makes it possible for the State Board of Health to exert its authority over physicians licensed prior to 1899.

Relative to the necessity for the last bill, the present condition is clearly expressed in the resolutions passed by the Council of the Chicago Medical Society, in the statement that "a physician licensed before July 1, 1899, may deceive and defraud the public, may commit any crime, may even be sent to the penitentiary, and yet remain a licensed physician." This is a condition which should clearly be corrected, and will be corrected if House Bill No. 477 becomes a law.

We earnestly advise every Illinois physician to lend his active support to the passage of these two bills. Write to your senators and representatives in the state legislature.

Just Among Friends

A DEPARTMENT OF GOOD MEDICINE AND GOOD CHEER FOR THE WAYFARING DOCTOR

Conducted by GEORGE F. BUTLER, A. M., M. D.

THE criteria by which Sokolowski attempts to demarcate tubercular pseudo-chlorosis from chlorosis fail in the cases in which they are most needed. In hysterics, there often occur a so-called nervous cough, a rise of temperature, and even hemoptys's. Of course, the tubercle bacillus is pathognomonic evidence.

Consequently the treatment of chlorosis cannot be confined to the ordinary restorative therapy. The conditions of maldevelopment require something more than iron or manganese for their stimulation. The great results obtained by opotherapy in conditions of maldevelopment, generally, and in arrested development through removal of physiologic organs would indicate its employment here. The imperfect metabolism aggravated by hepatic and renal inadequacy would indicate the use of alteratives rather than of simple restoratives.

Sir Andrew Clark made an attempt to reach this element by the following procedure: "On first waking in the morning, sip a quarter of a pint of cold water. On rising take a tepid sponge-bath, dry quickly and follow with a brisk toweling. Clothe warmly and loosely; see that there is no constriction of the body or of the limbs. Have four simple but liberal meals daily, arranged after this fashion: Breakfast—8 to 9 a. m.—whole-meal bread and butter, with one or two eggs or some broiled fresh fish or the wing of a cold chicken or pheasant, and, toward the close of the meal, half a pint of equal parts of milk and tea not infused longer than five minutes. Lunch or dinner—1 to 2 p. m.—fresh tenderly dressed meat, bread, potato, well-boiled green vegetables, and any sort of simple farinaceous pudding or cooked fruit, preferably apple; drink one glass of Burgundy alone or in half a tumblerful of water. Tea—4 to 5 p. m.—whole-meal bread and butter, with a cup of equal parts of tea and milk. Dinner or supper—7 to 8 p. m.—should resemble the mid-day meal, but should be less in quantity. Nothing is to be taken after this meal, nothing between meals, and nothing but what there is

set down. Walk at least half an hour twice daily, and as much more as strength and convenience will permit. Retire to bed about 10 p. m., and repeat the sponging and toweling. See that the bedroom is cool and well ventilated. Lead a simple, regular, active, occupied, purposive life; and do not notice or distrust yourself."

Both medicine and psychotherapy are aided and explained by the science of physiology, which shows that any force, whether of mind or matter, when it enters the body always encounters more or less resistance, and, when its strength is superior, overcomes that resistance. The part thus influenced by the incoming force tends to remain in the state to which it has been forced; which will be one of decreased resistance, so that the line along which the force acts will oppose a weakened power to any similarly acting force that may be brought against it. Thus, in time a habit is established. The act which at first we perform only with effort and consciously we at length, by aid of repetition, perform mechanically, with little or no effort.

It is the same with a thought. The thought which sends a smile to the face sends it there a little more easily each time we smile, and it travels along a line of its own, a different one from that pursued by the thought that brings a frown—which of course also will appear more and more easily as its line of resistance is weakened by thought-repetition. Both the physician and the psychotherapist know this, and the inferences to be drawn are obvious to both. Each thought, good or bad, healthy or injurious, that enters the mind, if persisted in, has its direction of march through the body marked out for it, and it will pursue it as infallibly as heated air rises and cold air falls.

In medicine, the principle of *selective drug-action* shows how a given drug, on its way through the human body in the blood circulation, passes by a hundred stopping-places

unhesitatingly, hurrying on its way to carry succor to the one organ or part that needs it and for which the physician has intended it; and in psychotherapy we know that a thought acts in a similar manner. In fact, the drug-action illustrates the method of the thought-action.

Always the method of the invisible is declared by the method of the visible to those who have the eyes to see. Moreover, the means by which the psychotherapist learns what thought or thoughts to administer in a given case, are so much like the means employed by the physician in finding his drug indicated that really there is no difference between them except in mere form, and often not even in that. In a surprising number of cases they are identical. As the physician takes the patient's pulse and asks questions, or sees without asking what he wishes to know, and thus finds the right drug indicated, so the psychotherapist asks his patient questions or sees for himself what he wishes to know without asking anything, and in this manner takes the patient's mental pulse and finds what correction of thought is indicated.

Medicine and psychotherapy, in short, are blood brothers, not enemies. At their best, they both of them have the same origin and the same aim, growing out of the desire of the best people in the world to bring into it all they may of health and happiness; and even the methods of the two differ from each other in a much smaller degree than is commonly supposed. While for years to come there will, perhaps, be healers and physicians between whom there will be unending strife, the not distant future will surely see the union of these two great professions at the top, and the best doctor will be he who is most skilful in the application, not merely of medicine, but of the principles of psychotherapy as well.

As to the etiology of arteriosclerosis, Herz affirms that the main point which he emphasizes is, the importance of grief and worry in the origin of this condition, and the necessity of the physician's being a true friend of the family and adviser in order to better conditions in this respect.

Herz is right. Far too little attention is being paid, as a rule, to the nervous or psychic factors contributing to arteriosclerosis. And not only in this condition but in every other should we practice more psychotherapy. Physicians are prone to scoff at the idea that one can die of a broken heart; still, humanity at large and many general practitioners know

that this does occur. Herz tells of a case of this kind in his practice. A woman whom he knew to be perfectly healthy was actually consumed by grief and died of coronary sclerosis when her daughter went wrong. Women die of grief; men, from worry over business. The effect of emotions on the vascular system is most serious when the vessels involved are connected with the brain, heart or kidneys.

The physician who does not apply psychotherapy in the treatment of arteriosclerosis neglects one of the most effectual means at his command. In cerebral-neurasthenic arteriosclerosis, iodine is the main reliance, and no better preparation can be given than calcidin. In coronary trouble, theobromine and the nitrites are indicated. Yet, all these are of little, if any, value when the arteriosclerosis affects the cardiorenal vessels. Dieting is the reliance here. Even if alcohol and tobacco are factors in the vascular trouble, any benefit from dropping them entirely may be far outbalanced by the patient's longing for his accustomed stimulant. Everything should be done to make such a patient placid, comfortable, and cheery. An alcohol rub in the morning before rising is an important aid. If he dreads balneotherapy, do not insist upon it or on anything that will annoy or distress him.

Of course, the prophylaxis of arteriosclerosis should begin in childhood. Children generally are driven, as being naturally lazy and ambitionless, but this is a mistake. Most people, even children, try to do too much; they work and worry too much. Children should be trained to recognize that they owe a duty to themselves, to seek fun as a recompense for fulfilling their ordinary duties. Joy does not come to us as does sorrow; we have to seek for it, and we understand this. Most men are slaves to duty—they overwork and ruin themselves. We must do our very best to relieve or to cure our patients, and also to take advantage of our opportunities to teach them how to live. We should try to reach the mind and soul of each patient, and impress upon all our earnest desire to cure them and to keep them well after they leave our hands.

A natural question to ask is, How are we to determine the true position of a case of supernormal pressure? These cases always give us anxiety, and rightly so, for we are confronted by two dangers, and with one eye we see visions of a possible catastrophe through the rupture of a weak vessel by doing too little, while with the other we see the

danger of doing too much in lowering the pressure and weakening the circulatory force.

Our first duty is, to take a careful history of the case, and to observe the condition of the cardiovascular, the renal, and the alimentary systems; then to try to find out the cause of the high pressure, which may be errors in diet, alcohol, syphilis, lead, and, as I have just stated, excessive worry—remembering that supernormal pressure is not a disease in itself, but a symptom only.

If the left ventricle is hypertrophied, it suggests that the pressure has been persistently high for months or years. Experience teaches us that, with a restriction of red meats and alcoholic drinks in the dietary of those who take them freely, the pressure, if not a permanently high one, usually diminishes; and this argues that purin bodies and alcohol probably act as vasoconstrictors. Waste is constantly going on in the body, and it is important to get rid of the products of waste, whatever they may be. The proof of the splanchnic vessels being some of the earliest to become affected by arteriosclerosis points to our relieving congestion of the visceral vessels; and this can be done by judicious purgation, and 1-grain doses of calomel followed by a saline laxative two or three times a week are most useful.

It is very important that we overcome acidemia and autotoxemia, and this can be done best by sodoxylin and compound creosote or the sulphocarbolates. One of the greatest outlets for waste products is the skin, and when this is inactive free action of this organ must be encouraged; and this is best accomplished by mud baths, epsom-salt baths, Nauheim baths, and by massage and moderate exercise. Intestinal lavation also is very desirable where there is constipation. It is a common observation that with dilated peripheral vessels, causing an active skin, we get a lower range of blood pressure; a fact which should lead us to suggest to those who can afford it to follow the sun.

The cardinal principles of treatment, then, resolve themselves into a strict regulation of the intake, the active outlet for the waste products, and moderate exercise followed by rest; the latter being very desirable for giving a better distribution of the blood. Still, sphygmomanometric observations must be made from time to time as a guidance in treatment.

If in spite of our regimen and treatment the pressure continues high, after having

watched the patient carefully for some time, we may safely conclude that this is a case in which the pressure is permanently supernormal. In any event, recommend the general regimen to be continued, and as long as no urgent symptoms arise the patient may do his work in life, provided he avoids excitement and sudden strain.

We must not use any very *active* means to reduce the pressure, remembering that it is probably an advantage and necessary that the pressure be high for the maintenance of an adequate supply of blood to vital organs. Autocondensation, however, may be cautiously given in selected cases. As for drugs of the vasodilator type (by this I mean the nitrite group), use them very little except in emergencies, for it is sounder treatment to get rid of the chemical bodies in the system which tend to contract the peripheral vessels by the means mentioned, rather than by dilating the blood-vessels, with the offending poisons still intact. In gouty subjects, iodides and colchicine may be given carefully; but, if there is any syphilitic history, they may be pushed.

In the case of the active, driving business man who has unconsciously damaged his machine, let him reduce the speed from the twenty-four knots of a *Lusitania* to the ten knots of the ocean tramp. It is interesting to note that the worry and apprehension associated with the first shock of the discovery that something is wrong may cause loss of weight, and with it reduction in the blood pressure. Osler reports a case as follows: "A man of sixty-two, whose first indication of trouble was an attack of transient aphasia, lost two stone in weight in a year, and his blood pressure sank, from 220, to 150. He has been better since he has taken a philosophic view of the situation, and his blood pressure has risen to 180."

Don't forget to lessen the intake. We all eat too much—"the platter kills more than the sword." By all means, caution your patients to cut down on the amount of food. Overeating undoubtedly is a possible factor in obscure forms of hypertension and arteriosclerosis in persons otherwise temperate. Largely a matter of habit, the amount of food taken should be enough to keep the engines going at a steady speed. A diet of low protein content is best, and fairly large quantities of liquid should be taken.

And let me remind you again that *elimination* should be promoted in every way by making the action of the kidneys, bowels, and skin thoroughly efficient.

Among the Books

MAY: "DISEASES OF THE EYE"

Manual of the Diseases of the Eye. By Charles H. May, M. D., Columbia University, New York. Eighth edition, revised. With 377 original illustrations, including 22 plates and 71 colored figures. New York: William Wood & Co. 1914. Price \$2.00.

Good wine needs no bush. A book which in fourteen years has reached seven editions has passed beyond the pale either of commendation or criticism by the reviewer, both in respect of the length of time it has stood the test and also in consideration of the experience acquired by the author in making revisions and improvements. Doctor May's book has become a sort of classic among the smaller works on the eye.

We rather surmise that the conciseness of this manual has contributed in no small degree to its popularity. The general practitioner does not want a voluminous, exhaustive treatise on the subject. Of all the specialties in medicine, ophthalmology is the one in which the general physician has the least desire to dabble as a pretended expert. What he wants is, a concise, practical, systematic manual, sufficiently comprehensive and up to date, yet, of limited size and range; and this is just what Doctor May has given him, hence, the wide and continued demand for the book. He has managed to crowd a surprising amount of meaty information into the 400 small pages; and it is particularly pleasing to find so many excellent colored illustrations in a volume of this limited size.

ABBOTT: "NARCOTIC RECORD BOOK"

Federal Narcotic Record Book. For Physicians, Dentists and Veterinarians. Published by The Abbott Laboratories, [The Abbott Alkaloidal Company], Ravenswood, Chicago. Price, cloth, 25 cents; in flexible seal-grain leather, 75 cents.

Under the recently enacted Federal Narcotic Law, known as the Harrison Act, every physician, dentist and veterinarian will be obliged to keep a formal record of nearly every quantity of the drugs affected by the

Act, namely, opium and coca and their derivatives, which he dispenses in his office or elsewhere. For this purpose he will need some convenient form of record book; for he cannot hope to keep any acceptable record on loose paper. The only way to simplify and clarify this task (which every practitioner *must* carry out), and at the same time to render it satisfactory to the inspector, is to have a suitable record book.

The Abbott Alkaloidal Company has prepared an excellent little book of the kind—precisely what the physician, veterinarian or dentist needs. It contains a synopsis of the law itself, a list of the drugs covered by it, a place for making the preliminary inventory (which is also required by the law), even the notary's form of affidavit ready to execute, clear, simple instructions for the use of the book, and some hundred pages of ruled record space, all neatly bound in cloth, and of such a size that it will easily go in your coat pocket, and at the nominal price of 25 cents, or 75 cents in a beautiful flexible-leather binding.

We positively don't see how any man in practice can get along without this book. It reduces the whole vexatious affair to a simple question of filling in a few headings in a memorandum book—all the rest of the work is done by the book itself. If you want to relieve yourself of anxiety and work, and insure accuracy in carrying out this record requirement, get one of these little books.

FISCHER: "DISEASES OF CHILDREN"

Diseases of Infancy and Childhood: Their Dietetic, Hygienic, and Medical Treatment. By Louis Fischer, M. D. Fifth edition. Philadelphia: The F. A. Davis Company. 1914.

Fischer's textbook continues to maintain its place in the front rank of the many published volumes devoted to pediatrics. This author writes, everywhere and all the time, for the general practitioner, and avoids unnecessary theorizing, in order that he may the more fully consider differential diagnosis and rational therapeutics. In the diagnosis of

diseases peculiar to early life, the biologic methods receive deserved attention, and this portion of the book probably will prove most valuable to the general practitioner. The author recognizes and points out that the undeveloped organism of the child, because of its physiologic peculiarities, reacts to the same pathologic factors very differently than the mature organism of the adult.

The book contains 43 halftone and color plates, besides a wealth of illustrations, which have been supplied wherever they seemed essential, or at least desirable, to a clear conception of the subject in hand. The young physician desiring a single volume on the diseases of children will find it a safe "bet" to procure Fischer's latest edition; and even the experienced pediatricist will find much of interest in the views of the author.

FAIRBAIRN: "MIDWIFERY"

A Text Book for Midwives. By John S. Fairbairn, M. A., B. M., B. Ch. (Oxon.), F. R. C. P. (Lond.), F. R. C. S. (Eng.), Obstetric Physician, St. Thomas' Hospital. London: Henry Frowde, Oxford University Press. 1914. Price \$3.75.

One of the principal difficulties in the way of an adequate understanding of the science and art of midwifery is a lack of knowledge of the elementary principles of physiology involved in the subject. Anatomy is more generally understood. Therefore, it is with great satisfaction that we observe the care and space devoted by the author of this book to the physiology of pregnancy and labor in its broadest intent.

It should be remembered that the book is intended, not for the medical man, but for the midwife, of whom there is no widely recognized counterpart in this country. However, so far as the actual subject of midwifery is concerned, the physician will find it sufficiently full and adequate for all his needs.

The volume is well and generously illustrated. The plates, in particular, are beautiful pieces of work, both from the didactic and from the artistic standpoint.

THOMSON: "CLINICAL MEDICINE"

A Treatise on Clinical Medicine. By William Hanna Thomson, M. D., LL. D. Philadelphia and London: The W. B. Saunders Company. 1914. Price \$5.00.

A treatise on clinical medicine, as the author points out in his preface, should chiefly consider those phases of the subject

which concern the physician in his treatment of the sick. Knowledge gained in laboratories and at necropsies should be preliminary to the approach to the case. It is the condition of the living patient which then demands exclusive attention.

This book, therefore, begins with the meaning of certain common but important symptoms. In each case, that meaning is neither vague nor uncertain, but rather calls for thorough understanding before going further into the details of the condition. A chapter then follows on the use of remedies and how they can be most conveniently classified according to their special applications. Then follows the section on micro-organic infections, with a classification of these agents. The last section deals with the diseases of particular organs and tissues.

The author's avowed aim, throughout the book, is, to serve and help the physician while he is actively engaged in the performance of his professional duties; and we are bound to say he has made his purpose good. It is an altogether unique and exceedingly helpful book.

NORRIS: "BLOOD PRESSURE"

Blood Pressure: Its Clinical Applications. By George William Norris, A. B., M. D. Illustrated with 98 engravings and 1 colored plate. Philadelphia and New York: Lea & Febiger. 1914.

Blood pressure is a subject which has been a good deal in the limelight in the last few years—chiefly, we suspect, because in this period we have been furnished with reasonably accurate devices for the measurement of this phenomenon, and, so, like children with a new toy, we naturally have sported it upon every available occasion, in season and out of season. Not that we would be thought to belittle the value of the blood pressure as a diagnostic factor; but we do very emphatically believe that its importance has been greatly overrated and misunderstood, and that, when all the returns are in, it will be found to fall into a rather modest place in the ranks, alongside other physical diagnostics.

For this reason, we cannot regard any book at present devoted to the subject as being final, or decisive, or even, in the teleological sense, reliable, but only as contributing to the ultimate resolution of the matter. From such a viewpoint, Doctor Norris's contribution is to be welcomed, as being properly tentative and moderate. We are glad to find this statement: "Hypertension, *per se*, is not an

indication for treatment, except along preventive lines, any more than is the presence of a heart murmur." That has been the trouble with the whole blood pressure propaganda—that it has set everybody to devising ways and means to reduce it, and thereby has done about as much harm as good. The whole subject, as stated, can hardly be said to have reached, as yet, a stage of definite evaluation.

DE NORMANDIE: "CASE HISTORIES IN OBSTETRICS"

Case Histories in Obstetrics. By Robert L. DeNormandie, A. B., M. D., Assistant in Obstetrics, Harvard Medical College. Boston: W. M. Leonard, Publisher. 1914. Price \$4.00.

Following the plan of other volumes of this series, prepared by teachers in the Harvard University Medical School, Doctor DeNormandie has produced a book on obstetrics in the form of case histories, similar in arrangement to Cabot's "Case Histories in Medicine" and Morse's "Case Histories in Pediatrics." I understand that this style of teaching originated in the suggestion of Doctor Cannon, who was then a brilliant student in the school of which he is now professor. (It is a pity, by the way, that Doctor Cannon's own subject hardly lends itself to this kind of teaching.) It is a very excellent method, and the books produced under it are extremely helpful and practical. They should be especially valuable to those who are teaching the various subjects.

This book teaches obstetrics as it should be taught, at the bedside of the patient. The practical value of such a book needs no argument. It is self-evident. We have but one criticism to make—the text might have been illuminated by the introduction of at least diagrammatic illustrations.

ROSE AND CARLESS: "SURGERY"

Rose and Carless' Manual of Surgery. Ninth Edition. Revised by Albert Carless, M. B., M. S., (Lond.), F. R. C. S., Surgeon to King's College Hospital, London. New York: William Wood & Co. 1914. Price \$5.00.

If I should meet on the street an old and tried mutual friend, well known to all of us, and I should say, "He is the same old So-and-So, only improved a little with age and experience," that would be sufficient to convey, to everybody who knew him all they wished to know about him. Well, here is just such

an old friend, dressed in a new suit, and carrying a flavor of ripened wisdom, such as every good man and every good thing acquires by age, but in the main, the same old friend.

"Rose and Carless" is now in its ninth edition, and has been in our midst almost twenty years. What can a superficial review of such a book signify? I must, however, make special mention of the excellent chapters on bacteriology, infection, immunity, and hematology, contributed by Doctor Emery of London. They are splendid contributions in themselves, and they indicate the way in which the book keeps step with the march of events.

PRITCHARD: "PRACTICAL PRESCRIBING"

Practical Prescribing, With Clinical Notes. By Arthur H. Pritchard, M. R. C. S., R. N. (Rtd.), late house physician, Brompton Hospital, London. London: Henry Frowde, Oxford University Press. 1913. Price \$2.00.

There is, in these days, we fear, an unfortunate tendency toward the teaching of the various branches of medicine in watertight compartments; and the teaching of prescribing shares in the tendency. The subject is usually made a part of materia medica in the student's curriculum and is taught with almost exclusive regard to the pharmaceutical exigencies of the case. Such clinical therapeutics as are introduced into the mode of teaching are purely hypothetical and serve sheerly as "instances" upon which to base the writing of a sample prescription, for the prime purpose of exercising the student's knowledge of compatibilities, solubilities, quantities, and the like. The truth is, such prescriptions as are brought forth by this process are never written in actual medical practice, because such stereotyped, cut and dried cases are never met with there.

Doctor Pritchard evidently has felt the absurdity of this kind of prescription writing and, so, has prepared a book which approaches the subject from the other side—the sensible, practical aspect. In England, as we have more than once pointed out, medical students "walk the hospital," learning their medicine at the bedside. This book represents bedside prescribing. The cases are not conveniently adjusted to the prescription, to show up the beauties of a certain formula, but are actual ones, to which the prescription has to be made to apply. Each case is followed up from beginning to end, the prescription

being changed from time to time, as the progress of the disease demands, the reasons for the change being clearly indicated in the clinical history.

It really is a capital little manual, well worth adopting in our medical schools, and equally well calculated to educate the physician in the intelligent writing of genuine clinical prescriptions.

LYNCH: "DISEASES OF THE RECTUM"

Diseases of the Rectum and Colon, and Their Surgical Treatment. By Jerome M. Lynch, M. D., Professor of Rectal and Intestinal Surgery, New York Policlinic. Illustrated with 228 engravings and 9 colored plates. Philadelphia and New York: Lea & Febiger. 1914. Price \$5.00.

The author disclaims any intention of offering his work as an encyclopedia or as a book for the specialist, although he modestly hopes that all surgeons who treat this class of cases may find interest in its pages. It is, he says, addressed more particularly to those practitioners who have not yet attained well-rounded experience in rectal and colonic surgery; and, as the needs of each reader are likely to be different, he judged that the only way to meet them all was to cover the entire field. Many matters, the author warns his readers, apparently trifling, make or mar the success of an operation; and these usually are left to the resourcefulness of the surgeon while operating. He has aimed to prepare the reader in advance for such emergencies. The book goes further, and includes the preparation and after-treatment of the patient, and a consideration of the possible complications and how to meet or avoid them.

The illustrations are very illuminative and really do help to an understanding of the text—which cannot always be said of such illustrations. Amebic dysentery, and its specific treatment with emetine, receives a due share of attention. The entire book is carefully written and bears the earmarks of a trustworthy, scientific treatment of a subject which is all too prone to exaggeration.

GLEASON: "NOSE, THROAT, AND EAR"

A Manual of Diseases of the Nose, Throat, and Ear. By E. B. Gleason, M. D., Professor of Otology in the Medico-Chirurgical College, Philadelphia. Third edition. Philadelphia

and London: W. B. Saunders Company. 1914. Price \$2.50 net.

The present (third) edition represents a careful revision of the second, and an elimination of much that has become practically obsolete. The author does not lose sight of the motive of the book, namely, to furnish students and general practitioners with practical, useful information concerning this specialty. With this in view, he rightly gives more space to diagnosis and treatment than to rare and difficult operations, which the beginner should not attempt.

Where possible technics are numerous, the author has selected that which in his judgment is the simplest, quickest, easiest, and yields the largest percentage of good results.

We rejoice to observe his conservatism in the matter of operative treatment in diseases of the accessory sinuses. The section on the internal ear represents the last word on this rather rapidly changing subject.

WACHENHEIM: "INFANT FEEDING"

Infant Feeding: Its Principles and Practice. By F. L. Wachenheim, M. D., Attending Pediatricist, Sydenham Hospital and Mt. Sinai Dispensary, New York. Lea & Febiger, Philadelphia. 1915. Price \$2.00.

The American practice of infant feeding by the percentage method is, I think, much more favorably adapted to the necessities of the case than the German habit of feeding sheerly according to caloric requirements. The ideal way, however, is to compound the two methods, or, rather, to proceed according to each method and then adjust one to the other. This is the sound principle upon which Doctor Wachenheim bases his excellent book now under review.

A large part of the book is devoted to a consideration of digestion, metabolism, and caloric requirements; and still another large portion is devoted to disorders of metabolism and their relations to the feeding problem.

Inasmuch as the key note of modern prophylaxis in infantile intestinal infections is to maintain normal feeding, as nearly as possible, this problem has, of late, acquired a very broad and far reaching significance. Doctor Wachenheim has grasped in very adequate fashion the wide reach of his subject. We heartily commend his book to the modern scientific practitioner.



Condensed Queries Answered

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report their results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

Queries

QUERY 6087.—“Nonsurgical Treatment of Varicocele.” J. R. P., California, wishes an effective treatment for varicocele, where the patient will not submit to operation. The latter method the Doctor has tried with success, but about four patients out of five will not submit to it.

Unfortunately, doctor, the treatment of varicocele is distinctly surgical, and the operation is so simple that any patient in his right mind should, if the matter is properly presented to him, be perfectly willing to submit to it.

As to the exact procedure, it is better, we hold, to make the incision over the external ring, as in herniotomy, than the usual incision into the scrotum. The cord, veins, and arteries may be pushed out of the opening and the veins separated and ligated. This operation is simpler and easier, involves less laceration and hemorrhage, and the danger of embolism, thrombosis, and sepsis is greatly diminished. The wound should be closed without drainage, and is best sealed with collodion, over which a protective gauze pad is placed.

The subcutaneous tying off of the vessels, as practiced by quacks and some advertising genitourinary specialists, not only is unscientific, but extremely dangerous, and we hardly need point out the absolute uselessness of local applications or the like.

QUERY 6088.—“Dermatitis Herpetiformis.” C. K., Hawaii, writes: In a baby 6 months old (she now is seven) there developed some blisters on her neck. She has been treated by different doctors, but without result. The blisters look like herpes, but the base is not inflamed. Their location is just over one of the cervicodorsal nerves, unilateral. Some of the vesicles become hemorrhagic. Their size varies from pinhead to splitpea. At some places they coalesce. Two weeks

ago, one of the patches became very sore, and swelling appeared. The child's constitution is normal. Could it be that this trouble is zoster? Eczema is excluded.”

We are inclined to believe that your patient suffers from dermatitis herpetiformis (hydroa herpetiformis, herpes bullosus, etc.). It is just possible, of course, that it is hydroa vacciniforme. Both of these, it is true, are rare diseases of this part of the world, but, from the literature at our disposal, we would imagine not so very infrequently encountered in subtropical and tropical regions.

Hydroa vacciniforme invariably occurs during the hot months. It begins in early life and disappears toward adult age. There are minor divergencies in the reported cases, but they all present vesicles, usually pronounced, and sometimes with a central depression. As a rule, the eruption appears on the nose, cheeks or neck, but may be sparsely scattered over other surfaces. The breaking-out may be preceded by a slight burning of the part. The vesicles or bullæ may or may not show a surrounding red areole and vary in size from that of a pinhead to that of a pea. The contents first are clear, but later may become milky or seropurulent. Frequently two or three groups of vesicles coalesce, forming an irregularly outlined bleb.

In some of the vesicles, there occurs slight sinking-in, or umbilication, in the central portion, where there appears a thin reddish or blackish crust, while the periphery consists of a surrounding wall of fluid; others may dry up evenly and become crusted; still others may rupture spontaneously.

In dermatitis herpetiformis, there is a decided tendency toward grouping. The disorder pursues a persistent chronic course. Itching usually is a troublesome feature. Generally the vesicles, pustules, and blebs are of irregular outline and show little disposition to spontaneous eruption; they occur

mostly in groups of two, three or more, and occasionally some of the blisters contain a slight admixture of blood. They rarely are smaller than a pinhead, mostly being of the size of small peas.

In children, the eruption as a rule is of a vesicular character. Pringle reports a case in a child of three; Bowen, one in a child of four years.

The etiology of the disease still is obscure. Enough is known to help us to consider it as essentially of a neurotic character. The possible reflex origin is shown in the case of a child, in which phimosis was the factor, permanent cure resulting after circumcision. Even nephritis has been associated as an etiologic factor, as evidenced by a glycosuria and albuminuria.

You will find both these conditions thoroughly discussed in Stelwagon's "Diseases of the Skin" and other recent similar works.

Considering the character of the lesions and length of time they have existed, we may exclude pemphigus; while zoster, as you know, is very rarely observed in early life. This latter disease reaches its full development in five or ten days and then begins to subside.

It would be well to have the blood and urine of this little patient examined. Also, we should be inclined, after causing a thorough elimination, to put her on nuclein and the arsenates.

QUERY 6089.—"Tibial Induration." J. B. T., West Virginia, has under observation a girl of eleven years who has a "conical enlargement" of the tibia, just at the insertion of the patellar ligament, a little below and to the outer side. This condition followed a fall. The Doctor thinks that there must have been a partial fracture, although the child did not complain after the lapse of a few days. The child is very delicate, hence, surgical means have not been resorted to. There is absolutely no history of blood taint in either of the parents' family.

Before expressing definite opinion, we ought to have a clearer idea of the exact character of the lesion. It hardly is reasonable to suppose that partial ("green-stick") fracture would occur in this location or, if it did, to result merely in the formation of an osseous enlargement, as mentioned. You do not state how long it is since the trauma was sustained, or when the enlargement first made its appearance. Has it increased in size? Is it absolutely fixed and of bonelike hardness, or can it be reduced by direct pressure?

Were there periostitis, we naturally should expect some pain, even inflammation of the joint. It is possible, unless the induration is hard, that it is a cystic tumor or a hernia containing synovial fluid. Ebner describes a ganglion which was located on the external semilunar cartilage of the knee. As you are aware, in ganglia, while the progress of degeneration is going on, palpation reveals an almost bony hardness. If you will favor us with clearer data, we shall be pleased to venture diagnostic and therapeutic suggestions.

QUERY 6090.—"Bearsfoot as an Anti-rheumatic." L. V. A., Ohio, wishes to know where he can obtain the species of hellebore called bearsfoot, by a doctor of Ann Arbor said to be an effective remedy for rheumatism.

Bearsfoot (*polymnia uvedalia*) is a comparatively little-used drug. A fluid extract can be obtained, the dose of which is from 3 to 10 drops every three hours. Being resinous, it is not miscible with water. Specific medicine *uvedalia*, supplied by Lloyd Brothers, is equivalent to the fluid extract.

This drug is recommended as useful in glandular enlargements, with functional atony, in impaired circulation, flabby and sallow tissues, thus being applicable in "chronic splenitis, chronic hepatitis, mammary abscess, intermittent fever, and chronic rheumatism." Ellingwood says it has been praised most highly in the treatment of rheumatism, lumbago, and other painful conditions dependent upon the imperfect removal of the products of retrograde metamorphosis.

Should you give this drug a trial, we trust you will favor us with a report of your experience. This writer tested *polymnia uvedalia* some years ago, but was not particularly impressed with its action.

QUERY 6091.—"Serum for Rose-Asthma." U. S., Nebraska, asks whether there is a serum for asthma, which has been proven to be efficacious, and we only can answer that, to the best of our knowledge, there is no serum treatment for asthma.

As, in our estimation at least, asthma is a symptom that may be owing to cardiac, bronchial or hepatic disorder, it is impossible to conceive how any serum could meet the varying requirements. It is possible that you are thinking of the so-called Dunbar's serum, which is administered in hay-fever, or "rose-asthma."

Dunbar's serum, better known as pollantin, really is an antitoxin obtained by animal

inoculations with a toxin extracted from certain grasses and cereals. In some cases, it produces violent paroxysms of sneezing; in others, absolutely no effect; then, again, some practitioners record cures in 60 percent of cases, and relief in 30 percent.

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QUERY 6092.—“Hydrophobia: Pasteur Treatment vs. Madstones.” L., Georgia, has under care a boy who was bitten by a rabid dog on March 5. He immediately syringed out the wound with a strong solution of potassium permanganate and injected three ordinary syringefuls of the solution deeply around the wounds. The family of the boy are firm believers in the “madstone,” which was immediately applied by a relative who owns some. The Pasteur treatment was procured, but the parents refuse to allow its being used. The Doctor further writes: “I have saturated the patient with calcium sulphide, and also am giving echinacea. If you can suggest a better treatment, please do so. The boy seems to be doing well; there has been no rise of temperature so far, nor pain or swelling, only a little redness around one of the wounds, which are on the inside and outside of the leg, three inches below the knee. I sent the dog’s head to the state board of health, who report positive evidence of hydrophobia.”

There is just one thing to do, doctor, and that is, to insist absolutely upon the boy receiving the Pasteur treatment. There is no other remedy that will prove beneficial. The steps you have taken are perfectly proper. Of course, as the boy was bitten upon the extremity, it hardly is likely that any symptoms will show within thirty or sixty days. Had he been bitten on the head or face, trouble might be expected earlier. A rise in temperature is not to be looked for; the first symptoms may be a sense of constriction in the throat or stiffness of the jaw.

This writer has seen used one of the most celebrated “madstones” in this country, and its action certainly is somewhat puzzling (i. e., the adhesion and increase of weight); nevertheless, these stones cannot be regarded seriously as a remedial agent.

The fact that the state board of health reported the presence of Negri bodies makes the prognosis extremely unfavorable, unless the Pasteur treatment is instituted, quickly and vigorously. Frankly, were we in your place, we should put it up to the parents of the boy to accept such treatment or to relieve you entirely of responsibility.

QUERY 6093.—“Tinea Versicolor.” J. D. S., Pennsylvania, is treating an exceedingly stubborn case of what to all appearances is tinea versicolor. So far, all the treatments prescribed by dermatologists have failed to make any impression.

After causing the peeling-off of the skin of the chest and upper back with sulphur solution, the Doctor thought he had conquered; but, in a week’s time conditions were as bad as ever. “Now,” he adds, “if you have any suggestions to offer, I should greatly appreciate your advice, for, I have run the gamut of hyposulphite of soda, pure sulphurous acid, boric-acid lotions, mercurial ointments, synol (a phenolized liquid soap), and a lot more, but all without any apparent effect.”

We suggest that you use again the sulphur solution (which very closely resembles Vlem-inckx’s solution), starting by diluting it one-half with distilled water, then gradually increase the concentration until the full strength is arrived at. Should this fail, we should try a solution of silver nucleinate (colloidal silver).

Several physicians who recently have used this preparation report perfect results. In one case of ringworm involving most of the extensor surfaces of the body, a cure was obtained in five days. The disease had resisted every other known remedy.

Dilute citrine ointment, in alternation with a solution of corrosive sublimate, 4 grains to the ounce, with a few drops of ammonia added, often has proven curative.

Liquor picis alkalinus has been used extensively; similarly, carbazol has yielded excellent results in some instances.

This is one of the few parasitic skin diseases in which internal treatment is unnecessary, although, of course, if any systemic disorder exists, it should be corrected.

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QUERY 6094.—“Injections for Tuberculous Glands.” J. W. V., North Dakota, has a patient afflicted with enlarged tuberculous glands in the neck, but they are situated too deep and are too extensive to be cut out; however, he has an idea that if he had a proper fluid, to be injected into the caseous contents of each gland, he might hasten their destruction and absorption.

We question the desirability of injecting anything into enlarged glands; especially are such injections liable to prove dangerous in tuberculous adenitis. Whenever a patient will consent, tuberculous glands should be removed. This is particularly desirable when the cervical glands are enlarged, as a blow

upon them may liberate and disseminate the bacteria and set up a rapidly fatal general tuberculosis.

If, however, the patient will not submit to an operation, the diseased glands should be rubbed each night with an ichthyol or combined ichthyol and iodine ointment, while every second day they should be painted with decolorized tincture of iodine. (The proprietary iodox has been used by this writer with great satisfaction.) Internally, give irisoid and phytolaccoid three or four times daily; also, arsenous iodide, 1-64 grain, after each meal.

Not infrequently it is advisable to secure a more prompt and positive action by means of galvanic cataphoresis. Fisher and several other authors highly recommend the inunction of unguentum Cr  d  , and this has served this writer well. It is particularly applicable in acute adenitis.

Where no evidence of tuberculosis or syphilis exists, treatment consists in removing the cause—middle-ear inflammation, adenoids, diseased tonsils, and so on. At the same time, tonics should be administered, such as iron, iodides, nuclein, and the like. The patient should receive highly nutritious food and spend most of his time in the open air. Change of residence, especially from damp, low-lying localities, to the seashore or mountains is particularly beneficial.

In the tuberculous form, total removal of the affected glands is the only rational procedure. Here, again, reconstructive medication is essential.

This writer remembers reading, some time ago, an article in which the injection of tuberculous glands was recommended, but it did not appeal to him, and several practitioners who tried the method were extremely disappointed in the results; in fact, in more than one case rather alarming conditions were set up, necessitating prompt operation.

QUERY 6095.—R. B. L., Pennsylvania, presents the history of a rather peculiar case, in which a great variety of remedies have been used, but without success. The patient is a widow, aged thirty-eight; had been married about ten years, but never was pregnant. She has been troubled with dysmenorrhea since she started to menstruate, and always had some vomiting spells during menstruation. "In 1912, at a social, she ate pineapple ice-cream that had a peculiar taste, and in about a half hour this caused her (and some of the other guests) to vomit;

and ever since then she has had attacks of nausea and of vomiting about one hour after eating, the food thrown up tasting and smelling sour. She was so exhausted and emaciated from this constant vomiting that for about a year she was not expected to live; she lost about 40 pounds. At present she is doing her own housework, and has gained about 20 pounds, but she still has that sick-feeling and vomits after eating. Sometimes she goes into a coma, which lasts from one-half to two or even three hours. Her blood seemingly is in good condition; the urine is normal. There is a tenderness in the region of the stomach, but never after vomiting. This tenderness sometimes extends nearly down to the navel.

"The remedies prescribed by three other physicians gave no relief. The only drug I have found of service is morphine in small doses, administered hypodermically; she now is taking about 3-4 of a grain a day. I have tried to stop it, but then her appetite would fail and what she did eat would come up. I hope you can prescribe some remedy that will stop her nausea, so that I can cut out the morphine."

Although we have very carefully considered the clinical data presented, we dare not venture even a tentative diagnosis, until we have a clearer idea of the basal pathology and condition of the body-chemistry; and we suggest that you forward to our pathologist a specimen of urine (4 ounces from the total 24-hour output—stating the total quantity voided); also of the stomach contents, secured one hour after the administration of a test breakfast.

Toxic gastritis (from the ice-cream) hardly could persist for years. On the other hand, considering the fact that the woman frequently vomited during menstruation, bore no children during her ten years of married life, and always had dysmenorrhea, her trouble probably is reflex, and of pelvic origin. Doubtless gastric irritability was increased by the ingestion of tainted food.

Make a thorough examination, noting especially the condition of the cervical canal, size and position of uterus, and so on. Not infrequently a case of this kind responds promptly to dilation of the cervix and anal sphincter. In making your examination, see whether you can discover hyperesthetic areas along the spine. Test the reflexes carefully, also.

In the meantime, we suggest that you substitute the modified H-M-C combination, taken internally, for morphine injections.

Have you used the faradic current? Can you exclude an hysterical element?

QUERY 6096.—“Typhoid Fever.” A. T. H., Nebraska, asks advice regarding the treatment of typhoid fever.

The treatment of typhoid fever has been outlined many, many times in these pages. It is essential to maintain a perfectly clean intestinal canal by the use of the sulphocarbolates. Nuclein should also be administered in full doses.

As soon as possible, give calomel, 1-10 to 1-6 grain, and podophyllin 1-64 to 1-6 grain (according to age) every fifteen to thirty minutes for six doses. During this period have the bowel well flushed with warm water. Two or three hours after the last dose of calomel and podophyllin, give a full teaspoonful of a laxative saline in at least eight ounces of water, and every three hours thereafter, 5 to 10 grains of the combined sulphocarbolates in solution, or crush a tablet and place the powder on the tongue, instructing the patient to wash it down with a few mouthfuls of water. The stool will soon become black, and gradually assume normal color. At first they will be extremely fetid, but later the odor will become natural.

Sponge the body with carbolyzed epsom-salt solution (epsom salt, 1 ounce, water, 3 pints, carbolic acid, 10 minims).

Be careful to avoid chilling the body. If the fever is high, give the defervescent compound (aconitine, veratrine, and digitalin), one-quarter to one granule (according to age) every hour until the fever falls and skin is moist. Never try to reduce temperature unless it is excessive, nor until the bowel is emptied and the sulphocarbolates have been given for at least half a day.

If the stools are extremely frequent, you may add a little codeine to the sulphocarbolates or give the zinc and codeine compound tablet. Twice daily give an enema of sodium sulphocarbolate (sodium sulphocarbolate, 20 to 40 grains; water, 2 pints). Nuclein, 10 drops, three times daily. On the third night, repeat the calomel and podophyllin unless the case is well in hand, when it is advisable to give, three times daily, quinine arsenate and hydrastoid in proper dosage.

Of course, peculiar symptoms must be controlled with the indicated remedies, i. e., cactoid and strychnine if the heart and vitality fail; echinacea if sepsis is marked; baptisoid in the rare cases where even more evidence of sepsis exists—the breath is sweetish and yet

sickening, the edges of the tongue and buccal mucosa are purple and a thick, pasty streak presents down the center of the tongue. Such patients are usually semicomatose. Also, if there is any internal congestion, with high rectal or buccal temperature, cool skin, cold extremities, and pinched face, give atropine.

For tympanites give oil of cajeput, two drops on a little sugar, and apply hot turpentine stupes. For extreme nervousness, caffeine valerate, 1-3 of a grain hourly to effect; and where nausea is a pronounced feature, give albumen water (the white of a fresh egg, stirred in a glassful of water) two or three times a day.

QUERY 6097.—“Narcophin.” W. T., Texas. This chemical, about which you inquire, is, as you correctly surmise, intended as a succedaneum for morphine and other opiates. It is a combination of morphine with narcotine, in the form of the double meconate, that is, morphine and codeine meconate, and contains 31.2 percent of basic morphine. The white bitter powder is soluble in water and in alcohol, and is administered hypodermically. The manufacturers, Boehringer and Soehne (Merck & Co., agents), recommending, ordinarily, from 15 to 30 drops of a 3-percent solution. The idea is, to have the main desirable, mutually corrective and supportive constituents of opium presented in a nearly natural form—in union with meconic acid.

QUERY 6098.—“Mistletoe.” W. H. L., Oklahoma, wishes to know if mistletoe has any medicinal properties. He was called to see a little six-year-old Osage Indian girl a few months ago. There had been partial suppression of urine for two days, and her skin and eyes were very yellow. The family demanded that the urinary flow be started within a few minutes. Should the doctor fail, the father explained he was going to hunt for mistletoe. He said *his* father was a medicine man and would make a mistletoe tea, give it hot, and start the water in three minutes. The doctor wishes to know if the mistletoe is really of value in such cases.

The action of mistletoe has not been closely studied. Some claim it to be a reliable oxytocic, while others deny this. Same as to its value as a nervine. It has been taken as an abortifacient, and in such cases has often produced serious poisoning. Full doses cause vomiting, catharsis, tenesmus, prostration,

and occasionally bloody stools. Coma and convulsions may close the scene.

In the Query Department of the October issue (1914) of *CLINICAL MEDICINE*, we comment on a death supposed to have been caused by the self-administration of butter-milk and mistletoe. The young woman before dying confessed that she had taken sulphur and buttermilk for several days, and a strong decoction of mistletoe for three or four days.

Ellingwood recommends mistletoe as an oxytocic and claims that in postpartum and other uterine hemorrhages it is safer and more effective than ergot. It is also recommended in amenorrhea and dysmenorrhea.

According to Tascher and others, it is a remedy for cardiac hypertrophy and dropsy associated with enlarged heart. Cardiac hypertrophy, valvular insufficiency, feeble pulse, edema, dyspnea and inability to lie down are the symptoms of the cases favorably influenced by 20- to 30-drop doses of the fresh extract.

Recently, the French have strongly recommended guipsine, the active principle of viscum album, as a remedy in hypertension, arteriosclerosis, hemoptysis, disorders of the menopause, and interstitial nephritis. Guipsine is obtainable in ampules.

Ellingwood recommends specific mistletoe in determination of the blood to the brain, oft-recurring headache, tearing rheumatic or neuralgic pains, weak, irregular heart action with dyspnea, cardiac hypertrophy and valvular insufficiency. None of the writers credit mistletoe with diuretic properties.

Of course it is possible that the old Indian was not referring to viscum but to some other herb known to him as mistletoe. Does this epiphyte grow in your part of the world? It might be well to look into this matter further.

QUERY 6099.—"Maybe It's Scleroderma."

K. A. H., Virginia, writes as follows:

"I am sending you a picture of a man 70 years old, whose condition is a puzzle to me, but perhaps you can advise me. The nature of the disease is as follows: The scalp is tender and white as bleached cloth, seems to adhere to the bone, and exudes clear, irritating serum. The margin of the skin is not affected. The skin around the eye is slightly swollen, but not inflamed. The kidneys seem to be all right; bowels are active; gen-

eral health seems to be good. I have treated the sore for twelve months and have gotten the tenderness out and stopped the oozing, but around the left eye the skin still is white and seems to be adhering to the bone. What would you call it? How would you treat it to restore the skin to its natural color? How would you treat around the eye?"

Unfortunately, it is impossible for us to make a definite diagnosis from the data submitted. In symmetric gangrene, local asphyxia, we have coldness and paleness of the affected area, with pain or numbness. Sooner or later, however, the parts become livid and swollen. There may be formation of vesicles or bullæ along the margin. Usually the extremities, nose or ear suffer. An arteritis sometimes is responsible; other cases have a purely neurotic origin.

In scleroderma, we have a circumscribed, localized, rigid, indurated or "hidebound" condition. The surface is tense-looking, usually shiny. Occasionally we observe edematous infiltration, with or without preceding chill, fever or other constitutional disturbance. Where there is discharge, however, the affected part usually is edematous. The skin pits slightly upon pressure. This symptom disappears as the discharge lessens and edema disappears and the integument becomes hard and rigid.

We are inclined to believe that yours is a case of circumscribed scleroderma morphia, but presenting somewhat unusual features. It is just possible, of course, that a break occurred in the affected skin, with secondary infection. We must, however, consider the possibility of alopecia circumscripta (*A. orbicularis*). Here, as a rule, the affected area is distinctly depressed and atrophied (and usually anesthetic). If you have access to Stelwagon's "Diseases of the Skin," study the chapters on scleroderma, alopecia, albinism, vitiligo, and others.

Are the man's finger-nails affected in any way? Any history of trauma? Possibility of luetic taint? The condition may be tropho-neurotic or of parasitic origin. In alopecia circumscripta, there usually is more or less involvement of the nails. The cause of that is unrecognized.

It would be well, we think, for you to send a scraping from the margin of the affected area and some of the discharge to an expert pathologist, for examination. The urine in this case should also be examined.

